ICELAND, GREENLAND,

AND THE

FARUE ISLANDS.



VIEW OF THE COAST NEAR STAPPEN

OLIVER & BOYD, EDINBURGH.

AN

HISTORICAL AND DESCRIPTIVE ACCOUNT

OF

ICELAND, GREENLAND,

AND THE

FAROE ISLANDS;

WITH

ILLUSTRATIONS OF THEIR NATURAL HISTORY.

MAPS BY WRIGHT, AND ENGRAVINGS BY JACKSON AND BRUCE.

EDINBURGH:
OLIVER & BOYD, TWEEDDALE COURT;
AND SIMPKIN, MARSHALL, & CO., LONDON.
MDCCCXL.

[ENTERED IN STATIONERS' HALL.]

Printed by Oliver & Boyd,
Tweeddale Court, High Street, Edinburgh.



PREFACE.

In this volume we have attempted to delineate three of the most singular and interesting countries on the face of the earth. Situated in the stormy ocean of the north, and far from the modern seats of civilisation, Iceland, Greenland, and Faroe, have nevertheless long attracted the notice of the student of man and of external nature. The first of them is distinguished not less by its remarkable scenery and the frequency of the most awful and majestic phenomena, than by the peculiar character, the curious history, and the literary remains of its people. The physical features of the second, though less terrible, are perhaps equally grand, whilst the degraded condition of its native population, contrasted with the inhabitants of the two others, presents us with a striking proof of the beneficial influence of learning and religion in preserving even the corporeal powers of man from degenerating. In Faroe, also, we behold a group of islands, the wild and rugged aspect of which might seem to have destined them only for the retreat of savages or pirates, transformed by the same causes into the abode of a mild, peaceful, and virtuous race. The connexion of the ancient possessors of

these regions, both in peace and in war, with our own country, and the numerous traces that still remain of the identity of many of their customs and laws with those of our ancestors, give us an additional interest in all that relates to them.

Though united by position, and in ancient times by origin and frequent intercourse, still their complete disunion by the ocean, and the varied course of their history and affairs, render it more proper to consider these countries separately. We accordingly commence with Iceland, presenting an outline of its physical condition and more interesting localities. Its magnificent chains of snowy jökuls, its volcanoes with their appalling eruptions, its hot springs and jets of boiling water, its lakes, rivers, and fiords, its singular climate and curious meteorological appearances, are all successively described. The discovery and colonization of this lonely island, the customs, laws, mythology, and political institutions of its pagan inhabitants, are next noticed. To these succeed their conversion to Christianity, the changes thereby produced, and the causes that led to the composition of those historical and poetical works which shed a solitary ray of light on that dark age, and still charm the learned of modern times. But with its subjugation to the Norwegian yoke a new scene opens, rendered more melancholy by its contrast with the past; and we gladly hurry over the mournful relation of the physical evils, the neglect and oppression which then crushed the spirit of the nation; dwelling with more pleasure on the benefits derived from their commerce with our countrymen, on the happy events of the Reformation, when some

gleams of their ancient fire again burst forth, and on the brighter prospects opened to them for the future. In a concluding chapter, we endeavour to present the reader with a general view of the physical, social, moral, religious, and literary condition of the people, which, when compared with that formerly given of their pagan state, will enable him to estimate the influence of climate, as modified by a considerable degree of civilisation, on the corporeal and mental organization of man.

Greenland, as it offers fewer objects of interest, is described with less minuteness. Its interior, occupied by vast fields of ice, presents little to detain us, and it is chiefly its coasts and fiords, on which most of the settlements are situated, that are calculated to attract the attention of the general reader. We accordingly notice their more remarkable appearances, as also those of the surrounding ocean with its icebergs, currents, and tides, the problematical structure of the land, and the various atmospherical phenomena, especially the effects of the intense cold, the splendid displays of the aurora, and the curious distortions produced by unequal refraction; concluding with a short view of the more important settlements scattered over the extensive shores of that vast region. The position and history of the Icelandic colonies on the Greenland coast, their discovery of America, and the causes which probably led to their extinction, together with the recent attempts made for their recovery, particularly the philanthropic labours of the venerable Egede and his successors, are next considered. The origin, appearance, character, manners, and actual condition of the Esquimaux in that dreary land are also

discussed, together with the prospects of advantage which the European missions and commerce hold out both to them and to the mother-country.

Nearly a similar order is followed in regard to Faroe. After describing the general features of the whole group, the precipitous cliffs and isolated rocks, tenanted by innumerable flocks of sea-fowl; the lofty hills paved with basaltic columns, and stripped by the tempests of every vestige of vegetation; the valleys traversed by mountain cataracts, on whose banks the natives place their solitary habitations; the moist inconstant climate, and the various peculiarities of the individual islands; we proceed to notice the history and character of the people, with their political, social, and commercial relations.

The chapters on the Natural History of these regions are as full as the limits of our undertaking would permit, and, it is believed, contain a more complete account of their peculiar productions than will be found in any other English work. Notwithstanding the deficiencies of the animal and vegetable kingdoms, the characters, varieties, and geographical distribution of both, and the ingenious uses to which the natives convert many species neglected in more fertile countries, are highly curious. The geology of Iceland, in regard to which the author has to acknowledge his obligations to the very able and interesting Memoir of Krug von Nidda, who first made known the true structure of it, will be found to contain many singular facts, less known in this country than they ought to be, concerning the long series of igneous formations which constitute almost the entire mass of this remarkable island.

The importance of these subjects is best seen in the variety of works which have been published concerning them, in nearly all the languages of Europe, from the voyage of the Zeni to the recent splendid volumes of Gaimard and his coadjutors. The natives of Iceland have not been behind in this path, and some of the most valuable treatises on its history, antiquities, and physical features, are from their pens. Of these we shall only mention the Landnamabok, the writings of Are Frode, and Snorro Sturleson, with the annals and sagas in ancient times; and more recently the various works of Arngrim Jonas, Torfæus, Finnsen, Olafsen and Povelsen, Stephensen and Finn Magnusen. In other countries the labours of Anderson, Von Troil, Mallet, Schlosser, Müller, Garlieb, Gliemann, Von Nidda, Legis, Marmier, and Gaimard, have also directed the attention of the public to this island; whilst in Britain, the publications of Stanley, Mackenzie, Hooker, Henderson, Barrow, and the American Wheaton, show the interest it excites among our countrymen. The accounts of Greenland are also very numerous, but it is sufficient to mention the names of Torfæus, Anderson, Egede, Crantz, Saabye, Giesecke, Ross, Parry, Scoresby, and Graah, with the "Antiquitates Americanæ," and the "Historical Monuments of Greenland," by the Royal Society of Northern Antiquaries at Copenhagen. Regarding Faroe, the books of Torfæus, Debes, Landt, and Hassel, the memoirs of Mackenzie, Allan, and Forchhammar, with the recent travels of Graba, are chiefly worthy of consultation. To these and many other shorter notices scattered through various English and foreign periodical

works, the Author has been indebted for the materials of the present volume, and his more particular obligations to each will generally be found in the Notes.

The Maps have been carefully prepared from the best sources, and the Engravings are principally designed to illustrate some of the most remarkable natural appearances described in the work.

EDINBURGH, *August* 1840.

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HISTORICAL AND DESCRIPTIVE
ACCOUNT
OF
ICELAND, GREENLAND,
AND THE FAROE ISLANDS.

CHAPTER I.

Physical Geography of Iceland.

Situation and Extent—General Appearance—Coasts—MOUNTAINS—Jökuls—Formation and Appearance of Glaciers—Mountain Chains—Sneefield—Central Desert—Volcanoes—Hekla—Eruption of, in 1766—Krabla and the Myvatn—History of volcanic Phenomena—Submarine Eruptions—Volcano of the Skaptar Jökul—Quantity of Matter ejected—FIORDS—General Character—Utility to the People—Principal Fiords—RIVERS—Jökul Rivers—LAKES—Not numerous—Myvatn—Thingvalla Vatn—HOT SPRINGS—Geyser—History of it—View of an Eruption—Strokr—Theory of Geysers and Analysis of Water—Ale Springs—CLIMATE—Seasons—Temperature—Winds—No Change in Climate—Ancient Woods and Agriculture—Ice—Extreme Cold—Mock Suns—Falling Stars—Effect of Climate on Animals and Vegetables—Drift Wood.

No region of the globe will to the attentive eye be found destitute of objects fitted to gratify an enlightened curiosity. Thus, the countries we are about to describe, though at first they may seem barren and uninviting, will on a closer consideration display many of the most

singular and magnificent phenomena of nature, amidst scenes of wild grandeur unknown in more fertile lands, contrasted with pictures of gentler beauty, not the less pleasing that they are unexpected. It is the same with the people who inhabit them; their strikingly peculiar character exhibiting many dark and gloomy features of savage life, relieved by virtues seldom observed in more advanced stages of society. Though deprived of every other attraction, those lonely islands would deserve attention, inasmuch as they manifest the power of the human race to adapt themselves to all situations, and to provide the means of subsistence in circumstances apparently the most unfavourable. The political and literary history of Iceland presents us with still higher views, —proving that there is no place, no physical conditions, in which mankind are necessarily barbarians; that the rudest and most uncultivated countries, the most desolate and inhospitable regions, may become the abode of nations participating in the highest qualities of our common nature; that the chill winds and snow-clad rocks of the North cannot quench the fires of the poet's imagination, nor blight that feeling of devotion which leads man every where to recognise the presence and power of his Creator.

Iceland is, next to Great Britain, the largest island in Europe, its surface being about a fifth part greater than that of Ireland. It lies in the midst of the Northern Ocean, and, as it approaches nearer to Greenland than to any European country, is by many geographers regarded as belonging to America. Having, however, been first discovered and peopled from Europe, and being in other points more closely related to this continent, it seems proper to consider it as forming a portion of the eastern half of the globe. It is situated between 13° 20′ and 24° 31′ of west longitude, and between 63° 23′ and 66° 33′ of north latitude, being nearly in the same parallel with the Bay of Trondheim in the Old World, and with Behring's Straits and Baal's River in the New. Its most northern point, Refsnes, between the Axar and

Thistil fiords scarcely touches the arctic circle, whilst the North Cape, though in most maps placed considerably to the north of this line, does not reach it. The greatest extent of the land is from east to west, measuring from the two most distant points, Fuglebiarg and Reidaren, above 320 miles; its breadth from Reikianes to Langanes is 300, and, at an average, about 180 miles. It is calculated to contain nearly 38,230 square miles, of which, however, only a ninth part or 4250 miles is inhabited, the remainder being covered with naked mountains of ice, or valleys rendered equally desolate by lava and volcanic ashes.*

Few countries present a more repulsive aspect than this land of snows, which even in its external figure bears the marks of those convulsions that deform its surface. It looks almost like the fragment of some former world that has alone escaped destruction, confirming the opinion which regards it as a portion torn from the bottom of the sea by the expansive energies of fire. Its dark rugged coasts sometimes rise into lofty precipices, against which the ceaseless waves beat in vain; at other times, the rocks rent asunder give place to long narrow fiords, in whose calm waters the mariner, escaping from the stormy ocean, finds a safe retreat. The southern side alone is flat and sandy. But there also numerous shoals, quicksands, and breakers, expose the poor fishermen to great danger, and render it almost impossible to land in safety. From Hammar Fiord to Ingolfshofde long banks of sand, some of them nearly two miles broad, guard the shore, and in other parts numerous rocks or skerries defend it from the waves.

The attention of the spectator approaching this polar

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* Gliemann, Beschreibung von Island (Altona, 1824), pp. 7, 8, 9. Great inaccuracy prevails in the old maps regarding the position of Iceland, most of them, as above stated, placing the North Cape in far too high a latitude. According to Olafsen's map its extent would be 56,000 square miles (2065 German miles); Egger's reduces it to 29,838 (1405 German miles). Hassel, Erdbeschreibung, vol. x. p. 218.

island for the first time is usually arrested by the snowy mountains or Jökuls.* Long before the coast is visible, they rise like small white clouds in the distant horizon, becoming more distinct in their outline as he draws nearer the land, and are at last plainly recognised as a mass of lofty mountains. Sneefield, though by no means one of the highest of these, is yet seen even beyond the Westmanna Isles, more than 140 miles off, towering far above the intervening country; and Sniofell, on the other side of the island, is visible when distant nearly one hundred miles. Notwithstanding the cheerless appearance of these piles of everlasting snow, they are, from their colossal grandeur, objects of great beauty and sublimity. When irradiated by the beams of a bright sun they shine forth in extreme splendour, glistening with the most dazzling lustre, and tinging the whole atmosphere with a golden hue.†

The mode in which these jökuls are produced closely resembles that of the glaciers of the Alps and Pyrenees, though the climate, from its low temperature and abundant moisture, is far more favourable to their increase. The rounded forms of the trachyte mountains permit

* This word means "ice" or "an icy mountain," and is derived from *Jaki*, "a fragment of ice." Similar words are found in other languages; as the *Jaa* of Finland, in Lapland *Jou*, the Hungarian *Jeg*, and even the Persian *Jach*. The Jöcher of the Swiss, though similar in sound, has probably a different root. In Norway these icy fields are called *Gykl*, and in Lapland *Jegna*. In the Alps they have different names in different countries, being named *Käs* near Salzburg, *Ferner* in the Tyrol, and in Savoy *Ruize* or *Glacier*, by which last they are generally known in this country. The higher part of these mountains is in general covered with snow, the ice beginning at a lower elevation, seldom exceeding 7000 to 9000 feet, being most frequently from 4000 to 5000, and even so low as 3300. It is a curious fact that the miners in Saxony and the Hartz, who first received their art from Sweden, still call the ice-like crystals found in the drusy cavities in the copper mines, and those concentrated from the vitriolic water, Joekel or Joekelgut, but without any knowledge of the meaning of the word. Anderson's Nachrichten, p. 2. Landnama, p. 482. Hoffmann's Erde, p. 168.

† Olafsen's Reise, theil i. p. 152. Krug von Nidda, Karsten's Archiv., vol. vii. p. 456. Henderson's Iceland (2 vols. 8vo, Edinburgh, 1818), vol. ii. pp. 31, 136.

the snow that falls in great profusion during the winter months, and in smaller quantities even in summer, to rest on their tops and sides. The beams of the sun in the hot season, though strong enough to melt part of this during the day, are not sufficient to preserve its temperature above the freezing point, so that the water, sinking down into the under portion, is again congealed, and binds the whole into a solid lump of ice. The fogs, which rising from the surrounding ocean are attracted towards these mountains and condensed in the form of snow on their cold summits, at once augment and consolidate the mass. When the jökul is once begun, its smooth shining surface reflecting the sun's rays diminishes still further their dissolving influence. The principal situation, therefore, for the formation of these glaciers is near the line of perpetual congelation, where the sun in the day has power to melt the snow, but not to keep it fluid during the night. The ice thus produced, though hard and thick, is seldom so pure as that which is produced in the usual manner, but contains numerous particles of earth, sand, and even small stones, either carried thither by the winds or washed down from the rocky peaks which pierce its surface, and has in the warm months, unless when covered by new snow, a dirty gray colour. It also contains many round or elliptical cavities filled with air, generally of small dimensions, though sometimes half a foot in diameter. In summer, a variety of circular holes from one to three feet in diameter, run in a winding direction into the ice, and are usually filled with very cold clear water of a pleasant taste. These are probably produced at first by some stone or other substance which is more easily warmed than the ice; and when water is once formed in these holes it continues to descend, owing to its having its greatest density at seven or eight degrees above the freezing point. The newly formed fluid, being thus lighter than that at the top, ascends, and the latter descends, in a perpetual circulation till the whole mass of ice is penetrated. Equally curious are the black

pyramids of sand cemented by the congealed water, which rise like immense sugar-loaves, four, eight, or sixteen feet above the surface, and are found on most of the jökuls.

Happy would it be for the inhabitants did these icy fields remain in the place where they are first formed, only dooming the summits of the mountains to eternal sterility. But year after year the accumulating snows add to their bulk, till, the resistance offered by the surface on which they rest being overcome, they invade the plains, laying waste the narrow fields and scanty pastures of the natives. Instances frequently occur when the Icelander, returning after years of absence in a foreign land to spend the evening of his life in the home of his childhood, finds its green valleys a desolate wilderness of ice. Often, where the declivities are more abrupt, the snow suddenly loses its equilibrium, and rolls down with immense fury and a loud noise, which heard in the still night resembles distant thunder. The internal fires that still glow in the bosom of many of these jökuls frequently hasten this catastrophe by destroying the slight hold the ice has on the mountain, and, converting the under-stratum into water, float it all down into the valleys. It seems to have been in this way that the Breidamark Jökul, now twenty miles long by fifteen broad and 400 feet high, was formed. It fills a wide plain surrounded by high hills, and which, till the eleventh century, or even later, was a beautiful vale adorned with grass fields, woods, and farms. In the thirteenth, and especially the fourteenth century, all the volcanoes in this quarter of the island were in motion, and the adjoining country was completely desolated by floods of water mingled with ice. Of this plain, first inhabited by Hrollaug, a nephew of the far-famed Rollo of Normandy, only a narrow strip of sand remains, and even this relic the glacier and the ocean seem about to destroy. The jökul consists of whitish-gray ice divided from north to south into long narrow bands, from which project numerous pyramids, closely

resembling masses of saltpetre. On the eastern bank of the Breida river Olafsen saw a wall of ice nearly sixty feet high penetrated by round holes one or two feet in diameter, from which clear cold water was gushing out. When seen by this traveller, the Jökul river, the shortest yet most dangerous in Iceland, was five miles long, but when Henderson visited it fifty years after, its course was reduced to one mile. The inhabitants still point out the ruins of a church, and the tombstone of a renowned warrior who dwelt here in more propitious days.*

Most of these jökuls are found in the two parallel chains which, separated from each other by a deep valley, cross the island in a direction from north-east to south-west. These mountains have had great influence both on the civil and physical condition of the country, and give to it, exclusively of the northern peninsula, nearly an oblong form. The more extensive of these chains is that on the south-east, which, commencing with the Smorfield near the Vapna Fiord, extends to Sniofell, whence, spreading out into the Thrande and Hofs Jökuls, it almost touches the shore in the valleys of the Alfta and Horne Fiords. Farther south follow the Klofa Jökuls, said to cover not less than 3000 square miles, and remarkable for their constant encroachment on the land which separates them from the coast. The strip of sand, here usually not more than a mile broad, is diminishing every year, and it is feared that even the present dangerous path, which is the only communication between East and South Iceland, will soon be intercepted. Towards the west the chain is prolonged by a continuous plateau of ice known under the various local names of the Skeidaræ, Sida, Skaptar, Torfa, and Myrdals or Katlegia Jökuls, till it ends on the coast with the Oester Jökul, which forms one of the first landmarks to those approaching Iceland from the

* Olafsen's Reise, th. i. p. 52; th. ii. pp. 90, 91, 120. Henderson, vol. i. p. 237-244. Landnama, pp. 302, 307.

south. The whole length of this range of mountains is above 200 miles. Only three of its more remarkable summits,—Oraefa 5927 feet, the highest mountain in Iceland; Smorfield, 5755 feet; and Eyafalla, or Oester Jökul, 5685 feet,—have been measured; but others, Torfa, Skaptar, Sida, and Skeideræ, mentioned above, seem little short of this last, and Sniofell, seen from the sea at the distance of nearly one hundred miles, must therefore considerably exceed 5000 feet.*

The other chain of jökuls follows the north-western border of the central valley, and from its position in the interior is less known than the former. In the south it begins with the Skialdbreid, or "Broad-shield," northwards from the Thingvalla Vatn, and is succeeded by the immense ice-field known as the Bald, Eiriks, and Geitländs Jökuls, whose dazzling snows present a striking contrast to the dark lavas that fill the greater part of the plain. The Hofs Jökul, seventy miles long, at the sources of the Oe or Eya Fiordsaæ, terminates this range, the whole length of which is only about a hundred and twenty. No certain information has been communicated regarding the height of this ridge, which, however, when compared with the former, from the top of Hekla situated between them, seems by no means inferior to it, and may therefore average more than 5000 feet.†

Other mountains of this character occur in the northern part of Iceland, of which the Glama and Dranga Jökuls are the most remarkable. These seem merely the more lofty points of a semicircular group which forms the nucleus of that singular peninsula, but owing to their remote situation are little known. Sneefield, between the Breida and Faxa Fiords, is also mantled with perpetual snow, and from its isolated position appears one

* Krug von Nidda, Karsten's Archiv. vol. vii. pp. 449, 456. Henderson, Introd. p. 9. Gliemann's Island, p. 90-103.

† Krug von Nidda, Karsten's Archiv. vol. vii. p. 457. Olafsen's Reise, th. ii. p. 133.

of the loftiest and most magnificent in the island. Its height is not well ascertained,—Olafsen and Povelsen making it 7052 feet, while Mackenzie reduces it to 4558,—both from trigonometrical measurements. As the instruments of the two former were confessedly very imperfect, the result obtained by our countryman is probably nearer the truth, which we may assume at about 5000 feet. The mountain is distinctly visible from Reikiavik, and the view from its summit is noble and commanding.*

The external form and linear arrangement of these rocky masses leave little doubt of their volcanic origin,—a fact which is confirmed by the mineralogical character of their contents wherever they have been examined. Still more terrible proof has in many instances been given when the latent fire within their bosom has burst forth with unexpected fury, tearing up the icy sheet which hid all former indications of its existence. Some of the most destructive eruptions have proceeded from jökul mountains; but we shall reserve our notice of them until we come to treat of these phenomena in general.

Between the snowy chains now described lies the great desert of Iceland, whose unknown regions form the scene of many superstitious terrors to the natives; and indeed, the lonely and desolate aspect of this district can scarcely be exceeded by any other region on the earth. Age after age, volcano on volcano have poured their stony floods over its surface, till it has become almost one black scorified field. Immense masses torn from the neighbouring mountains, and wide chasms, every where interrupt the progress of the traveller, whilst the magnetic influence of the rocks renders the compass useless as a guide. Long tracts of volcanic sand, interspersed with huge insulated fragments of lava, can scarcely be

* Krug von Nidda, Karsten's Archiv. vol. vii. p. 468. Henderson, vol. ii. pp. 36, 42. Olafsen's Reise, th. i. pp. 144-154, 202. Mackenzie's Travels in Iceland (4to, Edinburgh, 1811), p. 172.

said to diversify the scene. In these wastes no springs of water refresh the traveller, who, as in the deserts of Arabia, must carry a supply along with him. No bird, no beast, scarcely even a plant or humble moss relieves the tedium of the journey, or expels the feeling of loneliness that weighs upon his spirit. Where the internal fires have been most active, hills are tossed on hills in inextricable confusion, of which even the tempestuous ocean furnishes but a faint image. In other quarters magnificent glaciers of green transparent ice occur, whilst the volcanic scoriæ with which they are often mixed, exhibit a strange contrast, though one strikingly characteristic of this land, where fire and ice seem ever conjoined, and yet ever contending for the mastery.*

Little information has been obtained regarding the interior of this region, as few travellers have lately penetrated beyond the tracks that skirt its margin. In former times there were more of these crossing from the one side of the island to the other, deeper into this desert, but they have been long neglected, and the enterprise of the natives is not such as to excite hopes of their being again frequented. It appears, however, to form a plateau of no great elevation, from ninety to one hundred miles wide, extending across the country from north-east to south-west. In this plain rise low rocky ridges, separating it into smaller valleys, though their height is too inconsiderable, compared with the huge lateral chains, to break the uniformity of the whole. These run from south-west to north-east, parallel to the mountains on the sides, and when seen from the top of Hekla seem like furrows on its surface. In its centre is a long narrow valley, stretching from shore to

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* In the appropriate words of the old poet:—

Sed, quamvis nimio fervens exuberet aestu,
Scit nivibus servare fidem, pariterque favillis
Durescit glacies tanti secura vaporis,
Arcano defensa gelu, fumoque fideli
Lambit contiguas innoxia flamma pruinas.
Claudian. Rapt. Pros. lib. i. v. 165-169.

shore in the same direction. This desert is only visited by the natives in the summer months, when the women pitch their tents on its borders whilst gathering the fiallagrass or Iceland moss. But even then their dread of robbers and of other still more formidable though imaginary beings, with whom their fancy peoples the wild, seldom allows them to penetrate far into the interior. The flocks of rein-deer that sometimes issue from it, might afford reason to conclude that it contains some portions less barren than those which are at present best known.*

We have already noticed the volcanic nature of the jökuls on the side of this plain; and numerous cones of a similar origin are spread over its surface, of which the best known are Krabla and Hekla, the former closing its opening on the north, while the latter shuts it on the south. Hekla, or, as it is called in the country and in the old annals, Heklufiall, though by no means the most distinguished among the Icelandic mountains either for its height or picturesque appearance, has yet attracted the chief attention both of the natives and strangers. Its neighbour, the Trehyrning, or Three-horned Mountain, though only 2860 feet high, is said far to surpass it in beauty. But the situation of the former, near the most frequented part of the island, and in sight of vessels sailing to Greenland and North America, joined to the frequency of its eruptions and its facility of access, have all contributed to this celebrity. Its height, according to the measurement of Messrs Ohlsen, Vetlesen, and Frisack, is 5110 feet, and its circumference at the base is from fifteen to twenty miles. It lies completely isolated from all other elevations, in the midst of the valley we have described, and is about thirty miles from the coast. It contains little solid rock, consisting chiefly of fragments of lava and scoriæ mingled with ashes, pumice, and half-melted stones bound together

* Henderson, vol. i. pp. 64-73, 348, 363; vol. ii. p. 198-203. Krug von Nidda, Karsten's Archiv. vol. vii. p. 427; vol. ix. p. 248. Olafsen's Reise, th. ii. pp. 68, 73, 122.

by the streams of dissolved matter that have issued like veins from its sides. Near the foot it is surrounded by glazed walls, or cliffs, from forty to seventy feet high, composed of beds of lava, up which travellers, in many places, have to creep on their hands and feet.

The shape of Hekla is nearly that of a regular cone, the sides of which rise at an angle of 35° with the horizon, and it is divided near the top into three peaks, the one in the middle being the highest. The craters form hollows in the sides of these, and, together with many crevices, are in general filled with snow, though the outline of the hill and the internal warmth prevent it from accumulating in such quantities as on other mountains. When Mackenzie ascended it in 1810, steam was constantly arising from the central peak, and the heat was so intense, that on removing some of the exterior stones, those below were found too hot to be handled, and a thermometer placed among them rose to 144°. Its sides are scarred by numerous ravines, serving as beds for the winter cataracts, and occasioned either by streams of lava or by those torrents of water or melted snow which sometimes, though more rarely here than on some other volcanoes, accompany an eruption. "The most remarkable of these chasms is one on the western side, which extends from the top to the bottom of the mountain, and resembles a valley filled with heaps of melted substances, large masses of which still hang threatening on its declivities. This hollow was probably formed in the eruption of 1300, when the old annals relate that Hekla was rent to the very centre; its present appearance arising from its being partially filled by the debris from the sides, and by the sand and ashes with which the ejections generally close."

The beautiful and fertile plain which formerly surrounded this famed volcano is now overflowed by its fiery flood, or buried under immense heaps of cinders, pumice, sand, and ashes. For nearly ten miles around, no grass or other plant grows, and the ruined walls of the farm-houses and enclosures still seen amidst the wild-

ings of the torrents, tell the melancholy tale of days of prosperity which seem passed for ever. The most extensive field of lava lies to the south, spread out towards the Tindfiall, and is as it were sown with a vast number of small cones rising only a few hundred feet above its surface, yet easily recognised from the deep red colour of their craters. The most remarkable of these, the Raud-oldor, composed of small red half-melted stones, has an oblong form, and a crater in the middle 180 feet deep and 840 in circumference. These hillocks have all co-operated in producing this immeasurable sea of molten earth; the eruptions having oftener proceeded from those small channels which pierce the plain like a sieve than from the central opening. This is not peculiar to the locality now described, as the loose and crumbling sides of volcanic mountains are frequently unable to resist the pressure of a column of lava four or five thousand feet in height.

Hekla seems to have been in a state of repose for some time previous to the arrival of the Norwegians, and to have remained in the same condition more than a century afterwards. Many of the old annalists place the first outbreak in the years 1104, 1105, or 1106, but others make it a hundred years earlier. Most authors reckon twenty-three eruptions in all; others, with whom Stephensen agrees, only eighteen. The interval between them varies from six to seventy-six years, the average period being about thirty-five. But it is not to be supposed that lava in a fluid state has on all these occasions flowed from the mountain; its discharges being often confined to sand and pumice, which are, however, almost equally destructive to the adjacent country.*

* The dates of the eruptions are as follow:—1004, 1029, 1105, 1113, 1157, 1206, 1222, 1294, 1300 (the last two are said to have been extremely violent, and to have continued during a whole year), 1340, 1374, 1390, 1436, 1510, 1554, 1583, 1619, 1625, 1636, 1693, 1728, 1754, 1766-1768. Von Troil's Letters (original edition, Upsala, 1777), quoted by Henderson, vol. i. p. 343. The difference in other authors probably arises from only counting those from the central crater. Vide Gliemann, p. 102, for other lists.

The last eruption of this mountain, in 1766, was remarkable for its violence. Four years before it took place, when Olafsen and Povelsen were there, some of the people were flattering themselves with the belief, that as there had been no outbreak from the principal crater for upwards of seventy years, its energies were completely exhausted. Others, on the contrary, thought that there was on this account only more reason to expect that it would soon again commence. The preceding winter was remarkably mild, so that the lakes and rivers in the vicinity seldom froze, and were much diminished, probably from the internal heat. On the 4th April 1766 there were some slight shocks of an earthquake, and early next morning a black pillar of sand, mingled with fire and redhot stones, burst with a loud thundering noise from its summit. Masses of pumice, six feet in circumference, were thrown to the distance of ten or fifteen miles, together with heavy magnetic stones, one of which, eight pounds weight, fell fourteen miles off, and sunk into the ground though still hardened by the frost. The sand was carried towards the north-west, covering the land 150 miles round four inches deep, impeding the fishing-boats along the coast, and darkening the air, so that at Thingore, 140 miles distant, it was impossible to know whether a sheet of paper was white or black. At Holum, 155 miles to the north, some persons thought they saw the stars shining through the sand-cloud. About mid-day, the wind veering round to the south-east, conveyed the dust into the central desert, and prevented it from totally destroying the pastures. On the 9th April the lava first appeared, spreading about five miles towards the south-west; and on the 23d May a column of water was seen shooting up in the midst of the sand. The last violent eruption was on the 5th July, the mountain in the interval often ceasing to eject any matter; and the large stones thrown into the air were compared to a swarm of bees clustering round the mountain-top. The noise was heard like loud thunder forty miles distant, and the accompanying earthquakes

were more severe at Krisuvik, eighty miles westward, than at half the distance on the opposite side. The eruptions are said to be in general more violent during a north or west wind than when it blows from the south or east, and on this occasion more matter was thrown out in mild than in stormy weather. Where the ashes were not too thick, it was observed that they increased the fertility of the grass fields, and some of them were carried even to the Orkney Islands, the inhabitants of which were at first terrified by what they considered showers of black snow.*

This remarkable mountain has been long associated with the superstitions of the natives, to which its awful phenomena give a great degree of countenance. The lower orders still regard it with terror, and few of them have ever ventured to ascend its summit, or even to accompany strangers as guides. Pits full of burning sulphur and mud, boiling springs, and openings whence smoke and flames continually issue, are the more natural dangers by which they endeavour to induce the traveller to forego his purpose; and when these prove vain, they relate to him stories of the mountain-birds shaped like ravens, but with iron bills, which evil-entreat all intruders on their domain. Its crater is the entrance to Hela's dark abode, and in the gloomy regions beneath the Icelanders have fixed "the place where the souls of wicked persons are tormented with fire; for they will tell you that they see sometimes whole troops of infernal spirits carrying the damn'd souls into the abyss of this mount, and returning back again to fetch more. Blefkenius says, this is generally observed after some bloody battle has been fought in some place or other."† Though the intercourse with strangers may have somewhat modi-

* Olafsen's Reise, th. ii. p. 138-140. Finnsen's Efterretning om Tildragelserne ved Bierget Hekla (Copenhagen, 1767). Barry's Orkney Islands, p. 13.

† La Peyrere's Account of Iceland, Churchill's Voyages, vol. ii. p. 365. Compare Arn. Jon. Brov. Com. p. i. sects. 7, 8. Hakluyt, vol. i. pp. 522-526, 558-562.

fied these superstitions in this vicinity, they are still found in all their force in the remoter parts of the island.*

If Hekla and the surrounding scenery form the wonder of the southern extremity of the great central valley, Krabla, the Myvatn, and the neighbouring mountains, are equally that of the northern. Though from their situation in a remote and thinly peopled part of the country they are less known and seldom visited by travellers, yet they embrace some of the most remarkable volcanic appearances in the island. The analogies between the two extremities of the central plateau are very striking,—both being chief seats of igneous activity, and both distinguished by lofty volcanoes, boiling springs, and large lakes. The Myvatn forms the centre of subterranean agency in this district, and a semicircular group of mountains, which, like the fragments of a gigantic crater, surround its shores, have almost all been lately in a state of eruption. The northern bank of the lake is covered with rough black lava, running into the water in numerous fantastic promontories, and divided by wide cracks, over one of which, sixty feet deep, there is a natural arch, now used as a road. On the west rise barren hills separated by sandy wastes and an extensive moor, intersected by numerous red cones, giving place in the south to dark mountains, and relieved in the east by the Namar or sulphur mines, where clouds of smoke recall to the mind the cause of the surrounding desolation.

The highest of these connected summits is Rafntinnufiall, or the Obsidian Mountain, so named from the occurrence of this beautiful mineral in immense quantities, forming three beds near the summit. Next to it is Krabla, which, like Hekla, seems to consist of matter thrown from the crater, principally pumice, sand, and soft earth, diversified by beds of yellow sulphur and a few misshapen rocks. From the looseness of its

* Olafsen's Reise, th. ii. p. 133-140. Mackenzie's Travels, pp. 236, 245-254. Henderson, vol. i. p. 340 344. Krug von Nidda, Karsten's Archiv., vol. vii. pp. 462-465, 471.

composition, this eminence has lately suffered much diminution in height.* In the surrounding plain, and even on the hill itself, are many fens interspersed with boiling pits of sulphur and mud, two of which on the south-eastern side are named Vjite, a contraction of Helviite, from their supposed connexion with the infernal regions. One of these seen by Olafsen had the form of a vast kettle filled to within thirty feet of the brim with viscid bluish water, only visible when the wind carried to a side the dense vapour that constantly ascended from its surface, and threw an acid mud on the banks. This seems to be an old crater, as well as that visited by Henderson, which lies about 700 feet below the summit. The latter is a deep pit or basin, about three hundred feet in circumference, filled with a mixture of water, sulphur, and bluish-black bolus, continually boiling, and every five minutes casting up a jet from the centre. This rose at first to about twelve feet, increasing by leaps to thirty, when it rapidly declined, and was preceded by a smaller spout from another part of the pool. The sides, composed of red earth and sulphur, are so extremely soft, that it is dangerous to approach the margin. "The horrors," says the last-named traveller, "of this wonderful pool, are absolutely indescribable. To be conceived, they must be seen; and, for my part, I am convinced that the awful impression they left upon my mind, no length of time will ever be able to erase." About a mile north-west from Krabla, to which it is connected by a narrow ridge, lies Leirhnukr, lower than either of the former, and said to be inaccessible from the fens and sulphureous pits which surround its base. Before the eruption of 1724-30, it was entirely covered with grass, but now appears consumed and corroded by the fire, and is considered one of the most dangerous volcanoes in this part of the island.

* Gliemann says that it is composed of sandstone and slate-clay (schieferthon), covered by sand, pumice, and ashes; but the statements of Olafsen and Henderson agree with the above description.

This eruption, in which the two mountains last named performed the principal part, is regarded as one of the most violent and prolonged that ever happened in Iceland, and was still fresh in the memory of many persons when Olafsen and Povelsen visited that district. Though every thing around bore marks of the agency of internal fire, yet neither of them was known as a volcano, and the stunted birches which had taken root in the crevices, and the white moss that clothed the surface of the lava, seemed to give assurance that its igneous resources were all exhausted. But as in the case of Vesuvius of old, which it resembles in so many of its phenomena, this lengthened period of repose was only the prelude to more terrible convulsions, and for five years the mountains raged as if with the concentrated energy of centuries. The steinaa, or stone flood, as the natives expressively named the lava that issued from Krabla, divided itself amongst the valleys into many arms, the largest of which, fourteen miles long and above two broad, entering the lake, destroyed the fish, and caused it to boil many days. Another approached Reykiahlid, burning up the farm-houses in its progress, but spared the church, turning aside when within two feet of the wall of the burying-ground.* During the day, the fiery stream burnt with a blue sulphureous flame, half concealed by the smoke, but yet so strong, that a tobacco-pipe could be kindled at it, to which it imparted an unpleasant taste. At night it assumed a bright glow, colouring the whole heavens red, whilst the clear sparks from it, and the fiery matter thrown from the top of the mountains, produced a continual lightning visible in the most distant provinces. Sometimes the current ceased, and the outer rind congealed, but a fresh supply of fluid soon burst it up, carrying the fragments along like shoals of ice on a river. These detached portions, twisted into all direc-

* This very curious fact of the lava currents being turned aside by some seemingly very slight obstacle, has frequently been observed on other occasions.

tions, at times produced figures as beautiful as if carved by some skilful artist. Often, on highly inclined places, the crust had sufficient consistency to remain standing, when the more fluid portion in the interior passed on; and thus formed long vaults curiously glazed within, and adorned with splendid stalactites hanging like icicles from the roof.*

Many other volcanoes are met with in this quarter of the island, but we shall only name two, Herdubreid and Trolladynger, situated considerably to the south, in the midst of the desert country. The first is a very high mountain, almost four-cornered, and surrounded, near the top as by a wall; the second, about thirty miles from the other, is lower, and separated into three peaks. Both have been frequently in combustion, and have together produced the Odaada-hraun, or Horrid-lava, one of the most extensive tracts of this substance in Iceland; but their remote situation has prevented them from producing much injury.†

The preceding account of the Icelandic mountains shows that most of them are of a volcanic nature, and from the native history we learn the frequency with which they have manifested this character. Most of them seem now to be in the state of intermittent activity, in which more or less violent paroxysms occur at intervals of longer or shorter duration, and, but for the uncertainty of these periods, we might consider some as in a state of complete repose. These alternations of movement and rest

* Olafsen's Reise, th. ii. p. 54-61. Henderson, vol. i. pp. 149-160, 171-179. Ghemann, pp. 95, 96. Krug von Nidda, Karsten's Archiv. vol. vii. p. 467.

† Olafsen's Reise, th. ii. p. 73. Gliemann, p. 94. Few languages seem richer in names for the different forms of mountains than the Icelandic; *jökul* is appropriated to mountains covered with ice; isolated rocks or hills are named *fell* or *fiall*; when the cliffs are as it were heaped one on another, *hlaud*; steep cones, *hnupr* or *hnup*; small knobs or knolls, *hiat*; and high mountain-plains, *moar*. Capes are named *nes* or *naes*; if they end in a high narrow promontory, *hafd*; and if with a single high mountain, *horn*. These explanations will show the import of the names imposed on many places by the first settlers.

seem common both to the separate members and to the whole system, there being many years in which the island remains undisturbed, whilst at other epochs it appears as if entirely devoted to the fury of contending elements. The most terrible of the volcanoes known in ancient times were Hekla, Oraefa Jökul, and the Katlegia, to which have recently been added Krabla, Leirhnukr, and Skaptaafells, which commenced only in the 18th century. The earliest record of such an occurrence is that of the Elldborg, in the western part of the island, said to have happened in the 9th or 10th century. This was followed by the eruption from the mountains in Guldbringe Syssel in the year 1000, at the time when the Althing was deliberating as to the reception of the Christian religion. In the 11th century, Hekla appeared in a state of violent commotion, extending in the middle of the 12th to many others, which devastated the land from north to south, and were accompanied by destructive earthquakes. In the beginning and at a later period of the 13th century, the south-western quarter was particularly excited, whilst in the middle of the succeeding one, the island was desolated by the most terrible convulsions, concluding in 1391 with a violent earthquake, felt over the whole country. From this date till the beginning of the 16th, the volcanoes were comparatively quiet, but at that period, and in the end of the century, they raged both in the south and north. The 17th was again an interval of repose, in which only the southern ones were active; but the 18th age proved that their energies had undergone no diminution by eruptions even more violent than those of the 14th. Between 1720 and 1730, the same mountains were in incessant action, accompanied by earthquakes, whilst in the north, Krabla and Leirhnukr began their devastations; in the years 1753 and 1755 the Skeideræ and Katlegia Jökuls poured out every variety of volcanic matter; in 1766, Hekla again commenced, and the destructive outbreak of the Skaptar in 1783 closed these frightful scenes. From that time till 1821, with the exception of some slight agitations, and probably a few

inconsiderable eruptions in the desert parts of the country, no displays of volcanic action occurred. But on the night between the 20th and 21st December of the year just named, the lofty Eyafialla Jökul, of which the movement of 1612 was the only one formerly known, burst its icy covering, and began to cast out ashes, stones, and dust, accompanied with a strong flame. It continued till January throwing out great quantities of pumice ashes, which covered all the surrounding fields; and in February 1822 a lofty pillar of smoke still rose from the crater. In June of the following year it again began to burn, and on the 26th of the same month destroyed a part of the adjacent land; but, after pouring out some streams of water in the beginning of July, it was once more quiet. In this month also the Katlegia, after 68 years' repose, threw out sand and ashes, covering nearly 100 square miles of ground. In July 1825 both sides of the island were visited by earthquakes, accompanied by destructive hurricanes and floods; whilst on the 13th February 1827 there was an eruption of the Skeidera Jökul.

Such displays of volcanic fury have not been confined to the dry land, but have invaded even the channels of the sea. Many of the eruptions in the latter have without doubt been concealed by the waters, and passed away without any memorial, as those only which were most distinguished for violence could appear on the surface. The Westmanna Islands, in the line forming the prolongation of the southern chain of jökuls, bear evident marks of igneous action, consisting almost entirely of lava (a stream of which seems to have flowed from Helgafell in Heymaey), and are said to have ejected volcanic matter since the land was inhabited. But Cape Reikianes and the islands near it, which form as it were a continuation of the northern mountain-chain, present more decided tokens of internal combustion, and the sea in their vicinity has, as the natives describe it, been several times on fire. The Sturlunga Saga relates that this occurred in the 13th century more than five times, producing great changes in the islands. In 1340 and 1422 the same phenomenon

appeared, and in 1583 flame was seen rising from the deep by a ship from Bremen. It was again in action in 1783, when a new island rose from the ocean, but vanished next year during a violent earthquake. The quantity of pumice thrown out was so great as to cover the waves for 100 to 150 miles round, and even, it is said, to impede the progress of the ships. It also threw out ashes about 1831 in such abundance, that some of them fell in Reikiavik, causing great alarm to the inhabitants.*

As a particular example of the ravages produced by these terrible convulsions of nature may give the reader a clearer and more vivid idea of their action than any general description, we shall select the eruption of the Skaptar Jökul in 1783; it having been not only very violent, but the one of which we possess the fullest and most authentic accounts. The preceding winter and the spring of that year had been unusually mild, and nothing seemed to foretell the approaching danger till towards the end of May, when a light bluish fog was seen floating along the ground, succeeded in the beginning of June by earthquakes, which daily increased in violence till the 8th of that month. At nine on the morning of that day numerous pillars of smoke were noticed rising in the hill country towards the north, which, gradually gathering into a dark bank, obscured the atmosphere, and proceeding in a southerly direction against the wind, involved the whole district of Sida in darkness, showering down sand and ashes to the thickness of an inch. This cloud continued to increase till the 10th, when fire-spouts were observed in the mountains,

* Landnama, p. 68. Gliemann, p. 105-195. Olafsen's Reise, th. ii. pp. 171, 223, 224. Barrow's Visit, p. 91. Von Hoff, Verzeichniss von Erdbeben, &c. Poggendorff's Annalen, 1824, *et seq.* The dates of four eruptions in the 13th century are given in the Icelandic Annals in Langebek's Collections, viz.:—1211, accompanied by an earthquake; 1226, darkness at mid-day; 1238; 1240, in which year there was also an earthquake, the sun appeared red, and a pestilence followed. Vide Langebek's Script. Rer. Dan. tom. iii. pp. 77, 86, 93, 94.

accompanied by earthquakes. Next day the large river Skaptaa, which in the spring had discharged a vast quantity of fetid water mixed with gravel or dust, and had lately been much swollen, totally disappeared. This incident was fully accounted for on the 12th, when a huge current of lava burst from one side of the volcano and rushed with a loud crashing noise down the channel of the river, which it not only filled, but even overflowed, though in many places from four to six hundred feet deep and two hundred broad. The fiery stream, after leaving the hills, threatened to deluge the low country of Medalland, when a lake that lay in its way intercepted it during several days. But at length the incessant torrents filled the basin and proceeded in two streams,—one to the east, where its progress was for a short time interrupted by the Skalarfiall, up which, however, the accumulating flood soon forced its way, rolling the mossy covering of the mountain before it like a large piece of cloth. The other current directed its progress towards the south through the district of Medalland, passing over some old tracts of lava, which again began to burn, whilst the air in its cavities escaped with a strange whistling noise, or, suddenly expanding, threw up immense masses into the air to the height of more than 120 feet. The waters of the rivers, swollen by the melting of the jökuls in the interior, and intercepted in their course by the glowing lava, were thrown into a state of violent ebullition, and destroyed many spots spared by the fire. In this district the liquid matter continued to flow till the 20th of July, following principally the course of the Skaptaa, where it poured over the lofty cataract of Stapafoss, filling up the enormous cavity the waters had been hollowing out for ages. During the whole of this eruption the atmosphere was filled with mephitic vapours or darkened with clouds of ashes, by which the sun was either concealed from the miserable inhabitants, or appeared like a blood-red globe, adding to their terror and consternation.

The molten elements had so long confined their fury to the Skaptaa that the inhabitants of the eastern dis-

trict on the Hverfisfliot, though much incommoded by the showers of ashes, hoped to escape its more immediate visitations. But on the 28th of June a cloud of sand and smoke caused so thick a darkness that in the houses at noon a sheet of white paper held opposite the window could not be distinguished from the black walls, whilst redhot stones and dust burned up the pastures, poisoned the waters, and threatened to set fire to the dwellings. On the 3d of August a thick vapour rising from the Hverfisfliot, the entire disappearance of its waters, and a foaming fire-stream which on the 9th rushed with indescribable fury down its bed, overflowing the country in one night to the extent of more than four miles, converted the fearful anticipations of the natives into dreadful realities. The eruptions of sand, ashes, pumice, and lava, continued till the end of August, when the volcano appeared completely exhausted; but flames were still seen in February 1784, and thick clouds of smoke even in July of that year. The whole catastrophe closed in August with an earthquake of such extreme violence that men were thrown to the ground.

The immediate source whence this enormous mass of matter issued is entirely unknown, being situated in that great central desert of sand and snow which none of the natives have ever penetrated; and no traditions of any former occurrence of this kind have been preserved. Some persons who went up into the mountains during the continuance of the eruption were, in consequence of the thick smoke, compelled to return, and some subsequent attempts met with no better success. It is not even known whether the current that flowed down the Skaptaa and that in the Hverfisfliot proceeded from the same crater. It is, however, probable their sources were different though closely connected.

The extent of the lava can only be accurately known in the inhabited districts. The stream that flowed down the Skaptaa is calculated at about fifty miles in length by twelve or fifteen at its greatest breadth,—that in the Hverfisfliot at forty miles in length by seven in breadth.

In the narrow channel of the Skaptaa it rose to 500 or 600 feet, but in the plains its extreme height does not exceed 100, and in many places is only eight or ten feet. From its immense thickness, it was a long time in cooling, being so hot in July 1784, twelve months after the eruption, that Mr Stephensen could not cross it, and even then sending up a thick smoke or steam. In the year 1794 it still retained an elevated temperature, emitting vapours from various places, and many of its crevices being filled with warm water. This long retention of heat will appear more extraordinary when we consider the numerous globular cavities and fissures it contained permitting a free circulation of the water and atmosphere.*

The destructive effects of this volcano were not confined to its immediate vicinity, vast quantities of sand and ashes being scattered over the remoter parts of the country, and some were conveyed to the Faroe Islands, a distance of nearly 300 miles.† The noxious vapours that for many months infected the air were equally pernicious to man and beast, and covered the whole island with a dense fog which obscured the sun, and was perceptible even in England and Holland. The steam

* The mass of matter ejected on this occasion must have been enormous, and gives no countenance to the opinion that the igneous agents operating on the earth are diminishing in intensity. Assuming the average breadth of the first current as six miles, and of the second as three, both probably below the truth, the one would cover 300 square miles, the other 120, or 420 in all. With an average depth of fifteen yards, the combined mass would contain 420 × 3097600 × 15 = 19,514,880,000 cubic yards, or nearly twenty thousand millions. But this comprises only that portion which flowed into the inhabited districts, whilst it is likely that an equal or greater quantity remained heaped up around the crater, or flowed off into the unknown regions of the interior. To this must also be added the pumice, sand, and ashes scattered not only over the whole island, but to a distance of 300 miles round, in such abundance as to destroy the fisheries in the neighbouring sea. With these additions it would amount we may believe to fifty or sixty thousand millions of cubic yards, exceeding the solid contents of Hekla, which, if six miles in diameter at the base and 1700 yards high, would contain nearly fifty thousand millions (49,527,270,000) of cubic yards. This is probably larger than any individual mass of the older igneous rocks known to exist.

† This also happened during the eruption of Hekla in 1693.

rising from the crater, or exhaled from the boiling waters, was condensed in the cooler regions of the atmosphere, and descended in floods, that deluged the fields and consolidated the ashes into a thick black crust. A fall of snow in the middle of June, and frequent showers of hailstones of unusual magnitude, accompanied with tremendous thunder-storms tearing up huge fragments of rock and rolling them down into the plains, completed the scene of desolation. The grass and other plants withered, and became so brittle that the weight of a man's foot reduced them to powder; and even where the pastures seemed to have recovered, the cattle refused to touch them, dying of actual starvation in the midst of the most luxuriant herbage. Small unknown insects covered many of the fields, whilst other portions of the soil formerly the most fertile were changed by the ashes into marshy wastes overgrown with moss and equiseta. A disease resembling scurvy in its most malignant type attacked both men and cattle, occasioned in the former no doubt by the want of food, and the miserable, often disgusting, nature of that which alone they could obtain. Many lived on the bodies of those animals which had perished from hunger or disease, whilst others had recourse to boiled skins, or substances still more nauseous and unwholesome. The numerous earthquakes, with the ashes and other matter thrown into the sea, caused the fish to desert many parts of the coast, whilst the fishermen seldom daring to leave the land, enveloped in thick clouds during most of the summer, were thus deprived of their usual stock of winter provisions. We cannot better conclude this frightful catalogue of evils than by the following summary of the numbers of men and cattle more or less immediately destroyed by it in two years. The most moderate calculation makes these amount to 1300 human beings, 19,488 horses, 6801 horned cattle, and 129,937 sheep.*

* Stephensen says 9336 men, 28,000 horses, 11,461 cattle, and 190,488 sheep, but his numbers are thought exaggerated. The description in the text is chiefly abridged from this gentleman's

The fiords, which, bursting through the rocky barrier that guards the coast, run far up into the interior, constitute a most characteristic feature of Icelandic scenery. They have all a great similarity of form, so that the description of the general features of one may serve equally for that of all the others. Having probably been at first rents or chasms produced by the original upheaving of the island, their length is often very disproportioned to their breadth; some of them being scarcely two miles wide, yet extending twenty-five or even thirty into the country, and continued still farther by narrow vales, down which the mountain-rivers find their way to the sea. Lofty ridges, running out into the ocean and ending in precipitous headlands, separate them from each other. In the neighbourhood of the Röde and Beru Fiords these assume their most magnificent appearance, attaining an elevation of nearly 4000 feet, though their average height on other parts of the coast is only about the half of that now specified. So sudden is the rise of these mountains that it is no uncommon thing to find precipices 1000 feet high, from the top of which a stone may be cast into the sea. The fiords are thus shut in on both sides by perpendicular walls of rock towering up to a tremendous height, whose summits are clothed with eternal snows or veiled in dark clouds. All around seems dead,—no trace of life is visible. Man and all that he produces vanish amidst the mightier works of Nature. Woods and the higher classes of the vegetable creation are entirely wanting, and the naked rocks are too steep for even the hardy birch or stunted willow to fix their roots. No sound is heard save the billows dashing on the craggy

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"Account of the Eruption" published at Copenhagen in 1785, which will be found translated in Hooker's Journal, vol. ii. p. 124-261. Comp. Henderson, vol. i. p. 272-290; Gliemann, p. 107-109. The violent earthquakes in Sicily and Calabria were almost synchronous in commencement and duration with this eruption. The first shock was felt on the 5th February 1783, and they continued till the following May.

shore, no motion seen but the cataract rushing down the rugged cliffs.

Such is the general appearance of these fiords, and the repulsive aspect they present; yet there does the Icelander choose his dwelling, unappalled by the rocks which threaten every moment to crush him by their fall. The island is nowhere thickly peopled, but these firths and their connected valleys are more so than any other portion. Here grassy meadows are found in the immediate vicinity of the sea, and here, therefore, the natives can employ in conjunction both those sources of gain which alone the severe climate leaves open to them. On their shores are the finest pastures for the cattle, whilst their waters are a favourite retreat of the cod, the most esteemed of the fish caught on the coast. In them also the sea is calm and less exposed to storms, so that the fishermen carry on their employment with greater safety and convenience. Another advantage of these situations is, that the fiords, entering deeply into the land, are like canals, connecting the interior with the coast, and greatly facilitate both internal and external communication. Merchant ships sail up these inlets, and find a safe natural harbour, where they supply the wants of the natives and receive their produce in return. The most fertile portions of the island are thus brought thirty or forty miles nearer the ocean, and one boat will with ease transport more goods in the same time than thirty horses could have done on their miserable roads. We need not therefore be surprised to find that the inhabited country, where the fiords exist, stretches far up into the interior, and that where they are wanting, it is confined to a narrow strip along the coast.*

This peculiar formation of Iceland renders travelling remarkably difficult and even dangerous, the road continually ascending or descending the lofty ridges separating the fiords. Many of these are never free from snow even in summer, and the traveller who, in climb-

* Krug von Nidda, Karsten's Archiv. vol. vii. pp. 426-430, 452.

ing the steep side of the hill, was fainting under the oppressive heat, on gaining the icy summit is pierced through by cold winds. The tracks which cross these heights are often nothing more than hollows cut by some mountain-torrent in the precipitous rock; paths fitter for the goat or the chamois than for men or loaded horses. But the sagacity with which these animals find their way through such fearful ravines is truly surprising, leaping from ledge to ledge, or sliding down amidst the crumbling fragments. Accidents, however, frequently occur, when the horse and his rider, hurled over the precipice, are dashed to pieces long ere they reach the bottom.

The principal inlets on the west coast are the Faxa Fiord, fifty-six miles broad and thirty-seven long, extending between the promontories of Reykianes and Sneefield, and the Breida Fiord to the north of the latter, about forty miles wide and sixty long. Both of them separate into many smaller ones in the interior. In the north-western peninsula are numerous fiords of inferior magnitude, as the Patrix, the Arnar twenty-eight miles long, and the great Isafiardardiup, running forty-six miles into the land towards the south-east. On the northern coast these bays mostly follow a southerly direction, inclining a little to the east, or nearly at a right angle to the jökul chain. Of these we shall only notice the Skagastrandar Floi, ending in the Hruta, Mid, and Huna fiords, the Eya Fiord, forty-two miles long and ten or twelve broad, and the Axar and Thistil fiords, between which is the most northern point of Iceland. There are many on the east coast, but none equal in size to those we have named on the north; the more remarkable are the Vapna, fourteen miles long, the Reidar, eighteen miles long, and the Beru. We may here mention that the depth of water in the interior of the northern fiords, has of late greatly decreased, so that many harbours formerly frequented are now altogether inaccessible. This is no doubt partly owing to the debris carried down from the land, but the effect must also be ascribed to other

causes, which we shall notice in connexion with some similar phenomena in a subsequent part of this work.

As already observed, these fiords are in general connected with rivers, which form as it were their continuation into the interior; but where the central parts, as in Iceland, are almost destitute of inhabitants, these natural roadways are of less importance than in more favoured lands. Their course is seldom of any considerable length, none of them exceeding 100 miles, but they are broader and deeper than might be expected in such circumstances. Those proceeding from the ice-mountains are often flooded even in the summer, and throw serious obstacles in the way of travellers, as there are no bridges and but few ferry-boats; in which case they must be forded on horseback, in doing which the rider's life necessarily depends on the strength of his steed and its practice in swimming. Many of the larger streams cannot be crossed even in this manner, and the road has therefore to follow their banks until they divide or enter a glacier, on which slippery and dangerous path they may be passed over.

The rivers are of two kinds, which may easily be distinguished from the colour of their waters; those which issue from the glaciers, the jökulsaa* of the natives, being rendered white by the particles of clay or pumice which they bear down on their current. Many of these, especially on the south of the island, are of vast magnitude and rapidity, and present a strange spectacle where they burst from beneath their snowy canopy, carrying along with them immense masses of ice. Their course is often extremely short, that of some of the widest and most dangerous not exceeding six or eight miles. The stream from the Breidamark Jökul, which Henderson found great difficulty in fording, though spread out into several branches, is only one mile from its source to where it falls into the sea.†

The remaining rivers have little to distinguish them

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* All rivers are named *Aa* or *Au*, or *Elv*.

† Henderson, vol. i. p. 238.

from those of other lands. From the rapidity of their course none of them are navigable, and the same cause produces many sublime waterfalls, though without the accompaniment of the woods which add so much to the charms of those in more fertile climates. Some small streams, such as the Fossa or Cataract River, form almost a continued succession of cascades, the water only escaping from one dark pool to plunge headlong into another. In the deep gullies cut in the course of ages, the snow protected from the sun often forms fantastic arches, beneath which the current is seen to descend.

The only river of any size on the west coast is the Hvitau or White River, often called the Hvitau i Borgarfirdi, to distinguish it from others of the same name. It is formed by the union of three springs, of which the northern or Norlingafliot runs a considerable distance under ground. Though only forty-six miles long, this jökul river is from 200 to 300 feet broad, and so deep and rapid in the lower part of its course as to be quite unfordable.

The northern side of the island has very numerous rivers, of which the most considerable are the following:—The Blandau, from a branch of the Lange Jökul, has bluish water and a course of about forty miles, falling into the sea in the Blöndu Oos. Next follow the Herads Votn sixty-five miles long, and the Eyafiardarau about thirty; after which we meet with the Laxau issuing from the Myvatn, of the same length, but with a breadth of 400 or 600 feet, whose white waters run in a bed cut out of the lava rocks, amidst which it forms many rapids. The Jökulsau i Axarfiordi, the largest river in this part of the country, rises on the western side of Sniofell, and flows with a muddy stream over a very uneven bed, through which it foams and roars. It has a considerable breadth, and is so deep as to be crossed only in boats, and, after a course of eighty-five miles, pours its contents into the Axar Fiord. Though receiving few tributaries, it is still so large that seals are frequently found in it.

The eastern side has few large rivers, which mostly run in a north or north-easterly direction, whilst the smaller ones flow nearly due east. The most remarkable is the Jökulsau a Bru, or Bridge-river, which, rising to the north of Sniofell, falls after a course of fifty-six miles into the Bay of Hieradsfloi. Its waters are of a dirty brown colour, and, receiving the tribute of thirty-eight other streams, it is of considerable width and size. It is crossed only at three places, at one by a ferry, which is dangerous from the strong currents and breakers in the water; at another by a bridge, the only one in Iceland, which has on this account given its name to the river. It was built in the year 1698, is five feet broad, but now much dilapidated from age. The third passage, named *At Fara i Klofa*, is accomplished by means of a wooden box hung on two ropes stretched across the gulf, in which a man sits, and either draws or pushes himself over. The river has high rocky banks, and is from forty to sixty feet wide, yet it often overflows and produces great devastation, as in the year 1625, when it rose more than thirteen yards above its usual level.

Another singular river in this quarter is the Lagerfliot, issuing from Sniofell, which rises from the middle of the valley, down which it flows for fifty-six miles. Its waters are white, but pure, and it has often a depth of fifty fathoms, with a breadth of 360 to 600 feet. From Skriduklostcr to Rangaros, a distance of thirty miles, it is from 4000 to 5600 feet wide, interspersed with numerous small but fertile islands, and has altogether the appearance of a lake.

The rivers on the southern coast are almost all jökul streams, with the short course and magnitude characteristic of their class. The Napsvotn from Skaptaa Jökul, twenty-three miles long, has for the last fourteen a breadth of two and a half. The Hverfisfliot, which formerly joined it, is since the eruption of 1783 almost dried up. The same fate happened to the Skaptaa, which for the last ten miles of its course was nearly three broad, but whose diminished waters now find a

channel for themselves to the north of the lava-current. An opposite effect was produced on the Jökulsau a Solheima Sandi, commonly named from its sulphureous odour the Stank-Elven, which before the catastrophe of 900 was only a small brook. The Markarfliot, remarkable for a similar peculiarity, especially in the spring months, is also a jökul-elv, which running down from the Torfa separates into many arms. Its western branch receives the two streams named Rangau from the neighbourhood of Hekla, which have often changed their channel during the earthquakes to which that district is so much subjected, particularly in the year 1294.

A little westward from this we pass the Thiorsau and Hvitau, each of them about seventy miles long. The former rises near the Hofs Jökul, is rich in salmon and trout, and in one place where it crosses a lava-bed forms numerous falls and rapids. The latter, issuing from the Lange Jökul, is a noble river, flowing through the lake of the same name, which is surrounded by magnificent glaciers. It receives on the right by the Fliotsau the waters of the Geysers, and frequently overflows its banks. As it is crossed by the great road from the north of Iceland, and is frequently impassable for weeks, travellers are often reduced to great straits when the food they had provided for their journey is consumed; there being no place in the deserts where they can obtain a supply, nor even sufficient pasture for their horses.* The Kaldau to the south of Reikiavik is one of the most singular rivers in the island, and the last we shall mention. It issues in a considerable stream from a large basin near the Helgafell, and, after holding a westerly course of ten miles, suddenly vanishes in a bed of cavernous lava. It probably appears again in the Hafna Fiord, where a plentiful body of water has been observed flowing from the land into the sea.

Though rich in rivers, Iceland is by no means so in

* Gliemann, p. 36. Mackenzie, p. 237. Henderson, vol. i. p. 66.

lakes, its fractured soil seldom offering any hollows in which they can be formed. The Myvatn, named from the immense swarms of mosquitoes (*Culex pipiens*) that frequent its shores, is one of the most remarkable in the whole country. It lies in a situation the loneliness of which is only broken by the flocks of water-fowl that inhabit its banks and islands. Its greatest length is seven miles and the circumference about twenty, but it has been so filled up with the stony floods poured into it from the surrounding volcanoes that the depth seldom exceeds twenty-four feet. It contains thirty-four islands, mostly composed of lava covered with grass and the angelica, which are favourite breeding-places for the eider-ducks. From the deep fissures in its bottom issue numerous hot springs, sending up frequent dense columns of steam, which show the yet unceasing activity of the internal fires. These are the usual retreat of the forelles or trouts, which abound in the lake, and are considered fatter and more delicate than any other in the island. This sheet of water, though shallow, never freezes, probably from the vicinity of the volcanic foci.*

In the interior of the country, about forty-five miles north-east from Hekla, lies the large lake Fiske Vatn. It has no visible outlet, and was formerly much frequented for its fish by the inhabitants of the southern districts; but the shore is now abandoned, and only a few fragments of their huts remain. Farther west is the Hvitaar Vatn, nine miles long by seven broad, to the south of which we find the Apa or Laugar Vatn, so named from its being always lukewarm. The Thingvalla Vatn, on whose banks the Althing was formerly held, is the largest lake in Iceland, being from twenty-five to thirty miles in circumference. It is very deep, in some places above 100 fathoms, and contains abundance of fish, which may be caught during the whole year. It

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* Olafsen's Reise, th. ii. p. 54. Henderson, vol. i. p. 159. Gliemann, p. 39.

was much altered during the earthquake of 1789, the north-eastern side sinking whilst the opposite or south-western shore rose, so that some parts formerly more than twenty feet deep were left almost dry,—a circumstance by no means uncommon in the island.*

Next to its volcanoes, the hot springs, warm baths, and mineral waters, render Iceland one of the most interesting countries in the world.† Nowhere does the subterranean agency of Nature display its powers with a more lavish hand, or in more varied forms; and the hot springs alone are sufficient to arrest the attention of the philosophical student on this lonely island of the Northern Ocean. Certain of these cast up a thick column of water to the height of more than 100 feet with a noise that seems to shake the surrounding country. In some this happens constantly, in others at stated intervals, and in a third class irregularly, whilst almost all of them deposite a stony matter (siliceous sinter) which forms both the basin and pipe. This property finally leads to their destruction, the formation increasing more and more till the opening is closed and nothing of the spring remains but a small cone or hill formed of the flinty concretion. They are found in all parts of the land, some, like those on the Torfa Jökul, even sending up clouds of steam from amidst fields of perpetual ice. The very ocean that surrounds the coast is not free from them, and in the northern portion of the Breida Fiord, studded with innumerable islands, the water in many places is sensibly elevated in temperature by their action. The coast near Husevik is also remarkable for the hot

* Olafsen's Reise, th. ii. pp. 94, 140. Gliemann, p. 40. Many instances are mentioned by the Danish travellers of rivers disappearing or changing their course, and the same is said to have happened to the Myvatn. See Olafsen's Reise, th. ii. pp. 144, 145, &c. Gliemann, p. 25.

† Hot springs are named in Icelandic *hverar;* warm baths or standing waters *laugar;* and the mineral wells or acid springs *oellkildar*, i. e. ale-wells. The term *reik*, "smoke," Scotticè "reek," which forms so common a portion of their name, refers to the steam or vapour which rises from them.

springs that well forth from its bottom and cause great injury to the nets or ropes used by the fishermen. In this place we can only notice a few of the more striking, the peculiarities of which have rendered them objects of general admiration even in foreign lands.

Of these the Geyser and the surrounding wells are the best known, and those, too, of which we have the most authentic accounts. They are mentioned in some of the oldest writings of the country, but not as being particularly wonderful; and hence the time of their first appearance is involved in obscurity. They seem indeed to suffer great alterations from the earthquakes so common in this part of the island,—a circumstance which also accounts for the differences found in the descriptions of travellers. About the middle of the 17th century the eruptions seem to have followed regularly every twenty-four hours, but a hundred years afterwards this periodical action was found to have ceased, and no certain interval elapsed between them. Amidst the many disturbances produced by the earthquake of 1784, the Geyser regained its regularity, though the period was considerably shortened, there being four great ones in the twenty-four hours. Olafsen and Povelsen, who visited it before this event, found only one spring in motion, which propelled the water to the height of 360 feet, and it was said sometimes even to surpass this elevation. The first jet was preceded by a noise like a cannon-shot repeated six times, during which the ground quivered as if about to burst, afterwards each shot was succeeded by a gush of water, of which, as the whole continued ten minutes, and three seconds intervened between each, there must have been 200 in all. The diameter of the basin was fifty-seven feet, and its depth seventy-two; but they could not measure that of the lower openings, as the fluid constantly rose when they let down the plummet. This terrified their guide, who thought it was caused by the spirit of the abyss, who was angry with them for prying into the mysteries of his dwelling. The water at that time possessed its petrifying qualities, and

they saw not only vegetables, but even bones of sheep and other animal substances, converted into stone. At some distance to the west were other hot springs, two of them with high banks, and from six to eight fathoms deep. One of these was said to have formerly been named Geyser, and to have thrown out its contents with a vast force, but to have been closed up by an earthquake at the time the present one opened.*

The next traveller who gives an account of the Geysers is Von Troil, who visited them in 1772, and, from a measurement with a quadrant, estimated the height of the column at ninety-two feet. He was followed in 1789 by Sir John Stanley, who observed several eruptions, the highest ninety-six feet, and first mentions the new Geyser, or Strokr, which threw the water up a hundred and thirty-two feet. In 1804, Lieutenant Ohlsen found the great outbursts succeeding each other every six hours, and rising to 212 feet; whilst the Strokr continued to cast up a column 150 feet high for two hours and ten minutes. Hooker, in 1809, estimates the column at a hundred feet; whilst Mackenzie the following year makes it ninety, with an interval of thirty hours between each. The displays of the Strokr occurred every twelve or fourteen hours, and lasted half an hour or more, the water on one occasion rising seventy feet. When Henderson was there in 1815, the Geyser had again altered; its great jets following at distances of six hours, and attaining a height of seventy or eighty, and once of 150 feet: those of the Strokr lasted one hour, with an interruption of twenty-four, and he found that he could produce one at any time by throwing stones into the hole. In 1834, Barrow had to wait thirty-five hours before he was gratified by the spectacle

* Olafsen's Reise, th. ii. p. 146-149. The height of the jet, though not impossible, is probably exaggerated, none of the recent accounts approaching it; neither has the rising of the water in the pipe when any thing was let down been confirmed by later writers.

of one of the great jets, which he thinks must have ascended seventy or eighty feet.*

The diversity of the statements now given will show that the Geysers vary much in their phenomena from time to time, and also account for the discrepancies in the relations of those who have visited them. The most recent descriptions are those of Mr Barrow and Krug von Nidda; and as that of the latter author is particularly valuable from his scientific character, we shall chiefly adopt it as our guide. The Haukadal, in which these springs are found, is a valley about a mile in breadth, bounded on the north side by the Bald Jökul, and on the south by a chain of hills six or seven hundred feet high. The bottom of it is a marshy meadow, through which several small brooks wind their way to join the Hvitau. The icy shield of the jökul terminates the view on the north, whilst on the south the three snow-clad peaks of Hekla tower above the rocky wall of the plain. On the north side of it is a hill about 300 feet high, and half a mile long, separated by a narrow defile from the adjoining mountains, from which it appears as if torn by violence. A little south of this elevation, which slopes gently towards the level ground, lie the far famed fountains. In the space of a few acres, more than fifty hot springs can be counted, all distinguished by some peculiarities, though their vicinity to the mighty Geysers has almost withdrawn attention from them. They are of two kinds; the one filled with hot water, clear as crystal; the other giving vent to warm vapours, occasionally accompanied with very little fluid, which is always muddy. These last are confined to the summit or acclivity of the hill, whilst the others are only found in the plain at its foot.

The Geyser, the most remarkable of these singular wells, is situated on a mound of siliceous tuffa and sinter formed from its deposites, twenty-five or thirty

* Von Troil's Letters, p. 14. Stanley, Trans. Roy. Soc. Ed. vol. iii. part ii. p. 127–153. Ohlsen, Gilbert's Annalen, vol. xliii. Hooker, vol. i. p. 157. Mackenzie, p. 225. Barrow's Iceland, p. 193.

feet high, and 200 in diameter. On its summit is the basin, sixty feet across, and six or seven deep, at the bottom of which is the pipe, ten feet wide at the mouth, but gradually narrowing to seven or eight, with a perpendicular descent of seventy.* The interior of the basin and pipe is smooth, and polished by the constant action of the water, but the outside of the former is encrusted with beautiful flower-like groups of crystals, which have a most deceiving resemblance to cauliflower. Small jets preceded by five or six explosions, and rising to nearly twenty feet, took place every two hours; and in the intervals, the water filled only about half the basin, and was quite still, with a temperature of 154°, though immediately after the commotion it was near the boiling point.† When our author arrived at the Geyser, an intelligent peasant from the neighbouring cottage told him, that a great eruption had occurred shortly before, and that they only happened once in twenty-four or thirty hours, and he had accordingly to wait till next day. During the night the small spoutings waked him several times, but nothing extraordinary followed until past six the following evening. He was standing on the margin of the basin, when a hollow rumbling sound, succeeded by twelve or fifteen thundering explosions, producing a violent quivering motion in the ground, drove him from the spot, which seemed about to burst. Turning at a little distance, he beheld a thick pillar of vapour shooting like an arrow to the clouds, and surrounding a body of water rising with a fluctuating motion to the height of eighty or ninety feet. Some veins of the fluid rose above this, or

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* Mr Barrow makes the diameter of the basin fifty-six feet by fifty-two, and its depth four; the pipe, at the mouth, eighteen and a quarter by sixteen, diminishing to ten or twelve, whilst the depth is from sixty-seven to seventy. Marmier, in 1836, says that the basin was fifty-two and a half feet wide, and seventy-five deep; he had to wait two days for one of the large eruptions.

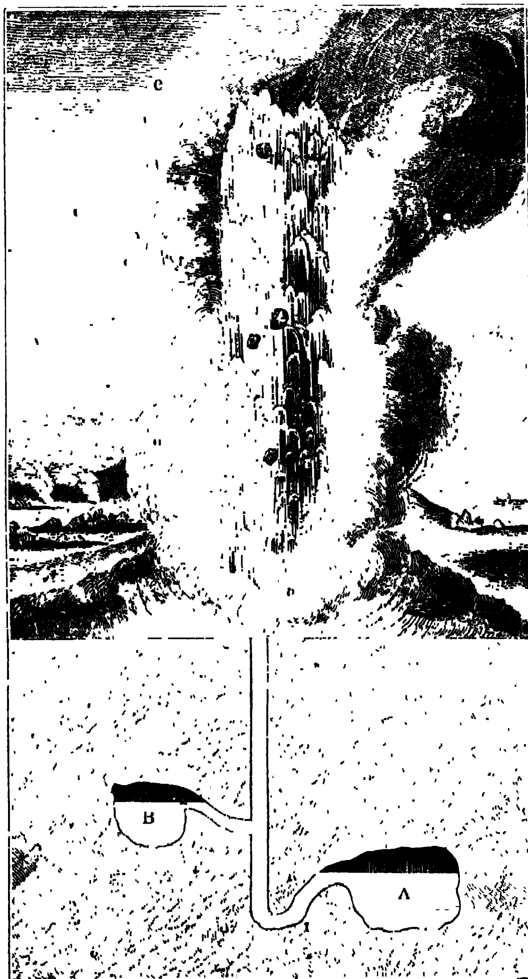
† It is stated in the *Comptes Rendues*, that M. Lottin found the temperature of the great Geyser 255°, at a depth of sixty feet, and that of the Strokr 233°, at forty feet.

streamed in arches from the cloud. Sometimes the steam divided and revealed the aqueous column shooting upwards in innumerable rays, spreading out at the top like a lofty pine, and descending in a fine rain. At other times it closed in thicker darkness round the centre, veiling it from the eye of the spectator. Often its giant powers seemed exhausted, and the pillar appeared about to sink into the earth, when again the thunder rolled in the deep, and the vapours burst forth, rising to the sky.

The eruption continued about ten minutes, when the water sunk down into the pipe, and the whole was again in repose. On looking into the basin, it was completely empty, and the water far down the tube was slowly ascending. Experience and the assurances of the natives told him, that this splendid phenomenon would not recur till the following day, before which he had to leave the place. But in a short time another spectacle of equal beauty and sublimity attracted his admiration.

The new Geyser or Strokr, about 150 paces south-west of the former, which had hitherto remained inactive, began to display its powers. This spring rises from a small mound, four or five feet high, forming a border at the mouth of the tube, which is five feet in diameter, and filled with water to within ten or fourteen of the surface. A thick cloud of smoke suddenly burst forth, succeeded by a liquid column, which was almost immediately dissipated by the violence of the eruption into fine spray, and rose to an immense height. From time to time jets shot upwards more than a hundred feet, and some large stones which had been thrown in, were cast out with great violence, rising almost out of sight, several of which ascended so perpendicularly as to fall back into the basin, serving for balls to this gigantic jet. The water was soon exhausted, but the clouds of steam continued to escape with a whistling or hissing sound three quarters of an hour, when the eruption ceased, and the fluid remained boiling in the tube as usual.

It is not completely determined whether these eruptions, which are at once more beautiful and endure for



The Great Geyser.

a longer period than those of the Geyser, are, like them, regular in their times of occurrence. Reasoning from analogy, we should expect them to be so, though the intervals, amounting, it is asserted, to two or three days, are much longer than in any of the others. Its explosions do not appear to depend in the least on those of the Geyser, each remaining unaffected during the activity of the other; and, indeed, all the thermal springs around seem, from their various levels, to be quite unconnected.

The fountain named by Sir John Stanley the Roaring Geyser, from its continual noise, in his time threw out the water every four or five minutes to a height of thirty or forty feet, and with such violence that it was "shivered into the finest particles of spray." In the earthquake of 1789, however, the tube of this spring was destroyed, and there now only remains a considerable opening, from which a stream of gas issues at short intervals with a loud noise. Many of the other wells are very remarkable, and in any other region of the earth would attract great admiration, but here they are scarcely noticed amongst the wonderful phenomena in their vicinity.*

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* Krug von Nidda, Karsten's Archiv. vol. ix. p. 247-257. The common theory of these springs is well illustrated in the accompanying engraving. It is supposed that there is a cavity, A, under ground, communicating with the pipe by a descending channel, in which heated vapours may collect until they have acquired force sufficient to expel the incumbent waters. The frequency and violence of the eruptions will thus depend on the size of the cavern, the rapidity of the formation of steam varying with the temperature of the earth and the superincumbent pressure from the column of water in the pipe. For the intermediate small eruptions of the Geyser we must suppose another smaller cavity, B, more frequently filled and discharged. The different appearances of the Strokr and Geyser depend on the capacities of their basins, the ascending column being probably not water alone, but a mixture of this with steam; a supposition which removes some difficulties connected with this subject. The following are analyses of the water of the Geyser by Dr Black, and of that from Reikum, which much resembles it, by the same distinguished chemist, and by Klaproth, the quantity of water in each being 10,000 grains :—

Many other thermal springs, which our limits will not permit us to notice in detail, are spread over the surface of the island. Near Reikum, south of the Thingvalla Vatn, more than a hundred of them are found* stretching in a line along the bottom of the valley, and are, next to the Geysers, the most remarkable in Iceland, though far inferior in magnificence. In Guldbringe Syssel they are very numerous, some of them, more especially those near Krisuvik, depositing sulphur. The neighbourhood of the Myvatn and Krabla is also distinguished for several, which we have already noticed; and near Husavik hot springs also occur presenting phenomena similar to those of the Geysers, but on a much smaller scale. The mineral waters of Sneefieldnes are known in Iceland on account of their slightly intoxicating power and acid taste, which have procured for them the name of Oellkildar, or ale-wells. These qualities are communicated to them by carbonic acid, which they contain in great profusion; along with it are found carbonate of lime, and, in some instances, the carbonate, muriate, and sulphate of soda. It is worthy of notice that no thermal springs similar to those just mentioned are at present to be discovered in this peninsula, though the siliceous deposites still remaining prove them to have formerly existed. In the valleys of the Nordur, Thuer, and

	Geyser.	Reikum.	Reikum.
Soda,	0.95	0.51	..
Carbonate of Soda,	..	..	1.04
Dry Sulphate of Soda,	1.46	1.28	1.73
Muriate of Soda,	2.46	2.90	2.93
Silica,	5.40	3.73	3.10
Alumina,	0.48	0.05	..
	10.75—*Black.*	8.47—*Black.*	8.80—*Klaproth.*

It is a curious fact that Dr Turner, in his analysis of water fro[m] the hot springs of Pinnarkoon and Loorgootha in India, found th[e] [illegible]a held in solution by free soda. That the same component parts prevail in volcanic productions, and that these mineral springs are only found in the vicinity of volcanic or other igneous rocks, proves the opinion of their relation to be well grounded.

* Edin. Journal of Science (1828), vol. ix. p. 95.

Hvitaaes, parallel to the volcanic line of the Sneefield promontory, very many of these are seen depositing siliceous matter and exhaling sulphureous acid gas.*

When we consider the situation of Iceland, in the midst of an open sea, which in general exerts a favourable influence on climate, and also its position relatively to other lands, we might expect to find it enjoying a milder sky than some of the facts already stated would seem to indicate. But the sea-breezes too often, instead of elevating the thermometer, cast on the shore immense fields of drift ice, which produce the most intolerable cold. We need not, therefore, be surprised to learn that this island, though almost entirely in the temperate zone, approaches in climate nearer to the polar lands. In it there are only two seasons in the year, the summer and winter, following so closely on each other that spring and autumn cannot be said to exist. The natives reckon the commencement of the former from the Thursday between the 18th and 24th of April, and that of the latter from the Friday between the same days of October. But in this division they are found to have allowed a greater length to the warmer portion of the year than the seasons themselves will justify; the severe cold continuing after this period, so that even in June the fiords may be rode over on the ice. It is a common observation both there and in Greenland, that the mildest winters are those in which the greatest cold prevails throughout the rest of Europe.

The frost is most intense during the first three months of the year, when the sky is usually clear; but on the coasts this rigour is somewhat lessened by the sea-breezes, though only in a small degree. In winter, in the south, the thermometer averages from 20° to 24° Fahrenheit, and

* Mackenzie, p. 396-401. Some interesting remarks on the nature and distribution of the thermal and mineral waters of Iceland will be found in Krug von Nidda's paper in Karsten's Archiv. fur Mineralogie (vol. ix. p. 247-284), translated in Jameson's Phil. Journal (vol. xxii. pp. 90-110, 220-226), and a very full list of them is contained in Gliemann's Beschreibung (p. 42-60).

in clear weather is often so low as 12° or even 5°; whilst in summer the mean ranges from 45° to 73°. At Reikiavik, according to M. Arago, the minimum temperature observed in twelve months was —1·66°, the maximum in the same period being only 71·6°; but this is probably produced by the proximity of the sea, the waters of which rarely vary above two degrees.* It often, indeed, exceeds these points, descending in winter to —13° and —26°, and rising in summer even to 82°; and in the sun in Borgar Fiord it has been observed as high as 104°, on which occasions the heat compelled the peasants to leave their work during the middle of the day. The mean temperature at Bessastadir, near Reikiavik, is 39·2°, but in the centre of the island it is not more than 36·5°, and in the northern parts only a little above the freezing point. The thermometer, according to the Danish travellers, is highest at noon, when it immediately begins to descend, and this is so regular, that they sometimes determined the hour by it. The barometer, observed for two years by Horrebow, ranged from 28·06 inches to 30·64. Mackenzie found it from 28·01 to 30·5; the minimum, according to M. Arago, is 27·85 inches; and its greatest variation in five years is said by Olafsen to have been nearly three inches.†

As happens in other islands, the weather is subject to frequent mutations, seldom remaining the same so long as two or three days. Even in the middle of summer snow and hail occur, and in the end of June it often freezes during the night, whilst the temperature in the day is above 70°. The variations of the barometer are likewise numerous and sudden, falling or rising nearly two inches

* Nouvelles Annales des Voyages, tome xvi. (1837), p. 238.

† Gliemann, p. 12. Hooker's Travels, vol. ii. p. 226. Olafsen's Reise, th. i. p. 4; th. ii. pp. 7, 156-158. Mackenzie's Travels, p. 470-481. Horrebow's Natural Hist. of Iceland (Lond. 1758), p. 204-206. The numbers in this last author are given in French inches ($26\frac{4}{12}$ and $28\frac{9}{12}$), but we have corrected them to English. Arago's number is 26 inches 1·6 lines, and he states, that the lowest it has been observed at Paris is 26 inches 2·5 lines (27·93 Eng. inches), reduced to zero.

in the course of twenty-four hours. Nor are its changes so closely connected with the weather as in other lands, being often low when this is good, and high when it is the reverse. It has also been observed of the thermometer, that it is sometimes lower during a thaw than in a frost.

The violent gales are more destructive to vegetation in Iceland than even the extreme cold. The wind blows almost constantly, being seldom still above a few hours; and so much are the inhabitants accustomed to this, that they call it calm when it is only a moderate breeze. The heavier gales tear up trees and shrubs, strip the earth of its green covering, and loosening the rocks from the mountains, hurl them into the valleys. Whirlwinds are not common, except in the Hval Fiord below the Thyrill Mountain, but sudden gusts cause great danger to the fishermen in the narrow firths. The south winds are much dreaded in the north, from the quantity of sand and ashes they waft along from the central districts, which darken the sky and destroy the pastures. These clouds, also known in other parts of the island, and named mistur or wind-mistur, are carried many miles, and colour the sky brown, red, or even black. During such tempests, the air whistling through holes in the rocks produces the most singular tones, as of a natural Æolian harp.*

The greatest advantage which the winds bring to Iceland is the dispelling of those dense fogs that gather on the land, sometimes covering only the mountain-tops, at other times only the valleys. These froströg, as they are called, are most common during sea-breezes which have passed over large fields of drift ice. The clouds are then low, and the sky above blue and clear, when the cloud-bow is sometimes seen like a bright arch, in which the prismatic colours are seldom discernible. In winter, the most usual winds are the north and north-west, which increase the prevailing cold; in summer, these alternate

* Gliemann, pp. 13, 16. Olafsen, th. i. pp. 2, 208, 265; th. ii. pp. 13, 14.

with the milder ones from the north-east, east, and south-east.

Rain and hail are very frequent, whilst snow is comparatively uncommon, and its flakes are remarkable for their hexagonal form. Thunder is seldom heard, though oftener in some parts of the land than in others, and in winter than in summer. Lightning is more common, and is sometimes destructive, especially in the vicinity of subterranean fires and volcanic mountains.* The laptelltur, best known in the western parts of the island, is a very curious phenomenon, seen only in winter, during a strong wind and drifting snow. At night, the whole sky seems on fire with a continual lightning, which moves very slowly. This appearance frightens the natives extremely, and they often lose many of their cattle by it, as the terrified animals, running about to avoid it, fall over the rocks.†

An opinion has been very generally entertained, that the climate of the northern regions of the earth has in modern times greatly deteriorated, and the history of Iceland has often been appealed to in proof of this position. In a very interesting article by the late Sir John Leslie, contained in a former volume of the Edinburgh Cabinet Library,‡ the general question has been ably considered, and this theory shown to be quite unfounded. We shall therefore only bring forward here a few of the numerous facts relating to this island which go to support his view. The names of Snioland and Iceland, given to it by the first discoverers, and the reasons assigned for these appellations, show that it was then as much infested by summer snows and icebergs as it is at the present time,—a circumstance which is con-

* Olafsen's Reise, th. ii. pp. 16, 61, 97, 162. This phenomenon and some others formerly mentioned seem to establish a more intimate relation between the interior of the earth and its external atmosphere than is generally admitted. M. Arago states, that from the 21st September 1833 to the end of August 1835, thunder was only once heard at Reikiavik.

† Gliemann, p. 15. Olafsen's Reise, th. i. p. 208.

‡ No. I. Polar Seas and Regions.

firmed by the conflicts of the colonists with the polar bears, only brought thither by the ice. The stunted growth of the birch forests, which, covering the whole island, enjoyed a better soil and more protection than at present, strengthens the same conclusion. The trees were indeed so small, that it is noticed as something extraordinary, that two of the settlers were able to form ships of native wood, so large that they could sail in them to Norway. Even for building their houses and temples, they seem to have been dependent either on drift timber or on such as was imported from the mother country. That those of the settlers who had come from agricultural districts attempted to raise corn, was only natural, and there is proof that it sometimes succeeded. But this success was only partial, in good years and warm situations, and there is reason to believe that with equal skill and industry the same might still be accomplished, as it was in the south in the time of Arngrim Jonas. That the attempts of Frederick V., about the middle of last century, to re-introduce agriculture into the island failed, is undoubtedly true ; but this was caused by the want of knowledge and perseverance on the part of the natives, and the high expectations of the Danish boors, who were disappointed at not raising crops equal in quality to those of Jutland. According to Olafsen, the corn ripened as well as it ever does in the Faroe Islands, and, as he says, there is no proof that grain fully ripe and hard ever grew in Iceland.*

Nothing has a greater effect on the temperature than the vast shoals of Greenland ice that in some years beleaguer its shore ; but this appears to have been equally abundant in former times as at the present day. The worst season ever known in the island was that of 1348, when the sea all round was so completely frozen, that they

* Arn. Jonas Crymogea, p. 52. Olafsen's Reise, th. ii. p. 182-189, where a very curious account of these and some other attempts may be found. He thinks that the moist and inconstant weather had more effect on the imperfect ripening of the grain than the want of heat.

could ride from one promontory to another. In the beginning of the same century (1306) the ice on the northern coast lay thirty feet deep the whole summer; and that this was no new occurrence is shown by the years 1261 and 1233, in which it is said never to have been dissolved.* We find, too, that in 1615 the ice surrounded the whole shore, and in 1639 came along the east side to Reikianes, whilst in 1695 it reached even to the Borgar Fiord. In the last century, the years 1717, 1742, 1784, 1792, were remarkably severe, though not so intensely cold as 1348; and these facts, to which many similar might be added, show there is little reason to think that any considerable change either for the better or worse has taken place in the climate of Iceland.†

The remarks now made leave no doubt that the temperature varies much in different years, and to this we must add, that the relative situation of the land has more influence than its extent from north to south seems at first to warrant. The northern coast is sensibly more frigid than the southern, and when beset with ice, the cold is sometimes extremely intense, changing the summer into winter. In the beginning of June 1757, it was a hard frost at mid-day, even under the rays of the sun, and the grass had not then begun to grow. The cold during the preceding year was still more severe; snow fell on the 26th June nearly two feet deep, under which the grass indeed sprang, but was not fit to be mowed until the end of August, when the ice left the coast. The winter of 1753-1754 was the most piercing the oldest inhabitants could recollect. The living horses ate the dead, "hide and hair;" they even tried to appease their hunger by the wood of their stalls, earth, and other such substances. The sheep also tore the wool from each other's backs. The very rocks were rent with the cold, and cracks were found in the earth forty fathoms long. Some smaller spots, from

* Annal. Isl. Langebek Scrip. Rer. Dan. tom. iii. pp. 91, 103, 127.

† Olafsen, th. ii. pp. 157, 158. Gliemann, p. 12.

their vicinity to the jökuls, are exposed to such evils every year; as, for example, Sneefield-strand, at the foot of the Dranga Jökul, which in the beginning of September was covered with thick snow, whilst on the opposite side of the Isa Fiord it was sunshine and summer. In the neighbourhood of the warm springs, frost is almost unknown, but the weather notwithstanding is generally very inconstant.*

The longest day in the southern part of the island is twenty hours, in the north more than twenty-three and a half; whilst from May to September there is no night. At the winter solstice the sun is seldom seen, yet the refracted beams give a full light. In the height of summer the solar disk appears always above the horizon, but of a dark-red colour, and imparting little warmth; and though it is so long visible, yet from the obliquity of its rays, the heat does little more than melt the crust of frozen earth, which is usually four feet thick. In the long winter nights, on the other hand, the whiteness of the ice and snow, the light of the moon and stars, and the fitful gleams of the aurora, compensate in no small degree for the want of the brighter luminary.

The northern lights, though not peculiar to Iceland, are seen frequently, and with great brilliancy; sometimes covering the sky with yellow, green, and purple flames. This light, reflected from the snow or ice, is also a remarkably beautiful phenomenon, as well as the cloud-bow and laptelltur formerly mentioned. Halos both of the sun and moon are well known, and mock-suns are so frequent that the natives have names for the different varieties. In the severe winter of 1615, it is related that the sun, when seen, was always accompanied by two, four, five, and even nine of these illusions. The effect of the atmospherical refraction in elevating distant objects is well known to the Icelanders, who call it *upphillingar*, and regard it as a presage of good weather. Fire-

* Olafsen's Reise, th. i. p. 274; th. ii. pp. 14, 15. Gliemann, p. 20.

balls are most common during earthquakes and volcanic eruptions, and falling stars are seen at all times.*

That this severe and inconstant climate can have no beneficial effect on any of the organized objects placed within its influence will easily be believed. The vegetable and animal kingdoms both suffer from it, and manifest its inhospitable nature by the paucity of their species as well as by their diminutive size. Even the human race, though from their rational endowments better qualified to guard against its immediate effects, are yet compelled to own its all-powerful sway. To it they must adapt their mode of living, their food, dress, and employments, and this its indirect operation produces the most important results. These, however, are more closely connected with a subsequent part of our inquiry, and it is sufficient here to have alluded to them.

Along with all its disadvantages, there is one benefit which the Icelanders derive from the ocean, which perhaps more than compensates their other privations. It is only some seasons that the ice which it bears on its bosom remains so long as to prove highly prejudicial, but every year it casts on the shore vast heaps of drift-wood, which supply the natives with fuel and materials for building. This timber appears to come from two directions, the current from the northern coast of Asia bringing it from the east, and the American or Mexican Gulf stream from the south-west. Owing to the general course of these, it is found in greatest quantities on the north-western side. The fiords in Strande Syssel enjoy it in most abundance, and in many of them it is seen piled up several yards thick, partly covered with sand or wild plants, and is often quite fresh. Trees with

* Olafsen's Reise, th. ii. pp. 161, 162. An extraordinary display of these last is noted in the old annals (Langebek, tom. iii. p. 34), as having been observed on the fifth of the kalends of November, in the year 977. This circumstance is curious, as connected with the recurrence of this phenomenon, which has of late years excited so much attention. The date, allowing for difference of style, would be the fourth or fifth of that month.

their bark and roots are also very commonly found in good condition, having, from being enveloped in ice, either before or soon after they fell into the water, been preserved from injury and waste. The wood on the north-western coast consists of the pine, Scotch fir, lime-tree, birch, willow, mahogany, Campeachy wood, and the cork-tree; on the east are found Scotch fir, silver-fir, birch, willow, and juniper; on the coast near Langanes, the Scotch and silver fir prevail. Associated with these come dead whales and seals, which are a great prize to the poor inhabitants. These have probably been killed by the icebergs, which move faster than a boat can row, and, when dashing together, sometimes by their friction set fire to the wood contained in them.*

* Olafsen's Reise, th. i. pp. 264, 271-273. Gliemann, p. 66.

CHAPTER II.

Topography of Iceland.

Ancient and Modern Division of the Island—*South Amt*—Reikiavik, History and Appearance—Videy—Printing-office—Reikianes—Essian—Reikholt Snorra-laug—Cave of Surtshellir—Skalholt, deserted Appearance of—Thingvalla—Almannagiaa—Westmanna Islands—Portland—Kirkiubaer—*North Amt*—Diupavog—Eskifiordr—Vale of the Lagerfliot—Husevik, curious Statue—Grimsoe, unhealthy Climate—Holum—Antiquities—*West Amt*—General Appearance—Mode of travelling in—Winds—Inhabitants—Salt-works—Flatey—Sneefield—Helgafell—Stappen—Londragur—Elldborg—Baula.

Iceland, according to the old constitution, was divided into four quarters, named, from the four cardinal points of the compass, the Sunlendinga, Westfyrdinga, Nordlendinga, and Austfyrdinga Fiordungr. This distinction, founded on the natural peculiarities of the country, continued till the end of last century, and is still recognised in all works descriptive of the island. But in 1770 it was formed into two amts or provinces, to which in 1787 a third was added, the western quarter retaining its former dimensions, whilst the eastern was divided between the north and south. Each of these is subdivided into syssels or counties, of which the south contains seven, the north and west six each, and these are again cut down into hreppar, corresponding to our parishes, every one of which, by the old laws, ought to contain at least twenty farm-houses.*

South Iceland, including the south-west corner of it, though situated under the mildest climate, is by

* Hassel Erdbeschreibung, vol. x. p. 233. Gliemann, p. 184.

no means the most beautiful or fertile portion. The volcanic eruptions, of which it is the principal scene, have torn up and deformed its surface, whilst its soil is in general far from being rich or productive. It is separated from East Iceland by the Solheima Sand, from the north by the great mountains and jökuls, from the west district by the Borgar Fjord and Hvitau, and comprehends about 3500 square miles. The population in 1801 was 17,159, but five years afterwards it had decreased to 16,511. This province contains Reikiavik, the principal, or rather the only, town in the island; which is placed on the south-eastern side of the Faxa Fiord, in a low narrow plain, enclosed on the right and left by two small hills, and behind by a lake. It consists of only two streets, one along the coast and another running at right angles from the west end of it, distinguished by the public buildings. These are the church, constructed of stone, covered with tiles, and not in very good repair, the prison, erected in 1759, and the houses of the governor, bishop, and some others. The private dwellings, with one or two exceptions, are built of wood in the Norwegian fashion, in the midst of small gardens enclosed by turf walls. This town is only of recent origin, though its name occurs in the early history of the island as the residence of Ingolf, the first colonist, and in Olafsen's time the foundation of the house where he drew his ship ashore was still pointed out. Attention seems to have been first turned to this place in the middle of last century, when a company for founding woollen manufactures was established there by the king. They received a grant of money and also of the farm of Reikiavik, on which to raise their buildings, and to try the experiment of growing corn. In 1806 the number of inhabitants was 446, of whom twenty-seven were confined in the prison, but at present it is about 700,—a miserable population for the capital of an island more extensive than Ireland. It is, however, the largest town in the country, and contains the supreme court of justice, the Royal Icelandic Society, instituted in

1794, a branch of the Icelandic Literary Society, formed at Copenhagen in 1816, a Bible Society, one of the results of the mission of Dr Henderson in 1815, and a public library, commenced in 1821, and now containing above 8000 volumes,—institutions which prove that the inhabitants have not forgotten their wonted literary aspirations.

The harbour is one of the best in the island, having excellent ground for anchoring, protected from the heavy swell by a number of small islets. On some of these the custom-house and magazines of public stores were formerly placed, but as they were frequently covered by the sea during high tides they were removed to the mainland. The commerce here is considerable; and besides the packet from Copenhagen once a-year, it is visited by many merchant-ships from Denmark and other countries. From the 25th of June to the end of July an annual fair is held, frequented by the natives of North and West Iceland, when they carry thither oil, fish, tallow, butter, fox and swan skins, and other native produce, which they exchange for meal, iron, linen and cotton cloth, tobacco, spirits, coffee, and similar luxuries. These strangers live in tents, and the town during their stay has an appearance of bustle and activity very unlike its aspect throughout the remainder of the year.

On a rising ground in the neighbourhood is placed an observatory built in the year 1774. It is in longitude 21° 55′ west of Greenwich, and in latitude 64° 8′ north. At a little distance in the bay is the island of Videy, where was formerly a monastery founded in the year 1226, and on which Chief-justice Stephensen, so well known by his writings and his hospitality to strangers, latterly resided. It possesses now the only printing-press in the country, which, though it belongs to the government, is rented to the occupier for 200 crowns a-year. On the mainland, in the vicinity of the town, are also several hot springs, from which its name is derived.*

* Henderson, vol. i. p. 10-13; vol. ii. pp. 159, 169. Mackenzie, pp. 79-83, 204.

On a promontory running into this bay a little farther south is Bessastadir, where is now the only Latin school in the island. Hafna Fiord, one of the small trading stations, and formerly much frequented by the English, consists of a few houses, lying below a lava-cliff. This we may consider the commencement of the south-western promontory which ends in Cape Reikianes. The whole district bears evident marks of volcanic fires, and some of its mountains have lately been in a state of activity,—a remark which applies also to the small islets or rocks of Elldey and the Geirfugla Sklaer, forming as it were its continuation into the sea. On the southern coast are the small fishing village of Grindavik, and Krisuvik celebrated for its hot springs and sulphur mines.

On the western coast north of Reikiavik is Saurbœr, near which the first Christian church was built by Oerlyg Hapson, a scholar of Patrick, bishop of the Hebrides, and dedicated by him to St Columba. The mountain Essian south of Hval Fiord is remarkable for its precipitous cliffs 2700 feet high, which run along the shore several miles without varying in height. Akkrefell, now well known from the interesting geological description given of it by Mackenzie, lies on the north of this firth, and, though somewhat lower, is yet similar in structure and appearance. At its foot is situated Indreholm, where are some fine-woolled Spanish sheep, and a curious water-mill, said to be the only one in Iceland.* Farther north is Leiraa, where there was formerly a printing-office in a miserable wooden building in the midst of a bog. Here some books were published in the native language, amongst which Sir George found a poetical translation of Pope's Essay on Man.†

Reikholt in this district, on the south side of the Hvitau, is well known to the lovers of ancient Icelandic literature as the residence of the famous Snorro Sturle-

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* Hooker, vol. i. p. 286.

† Mackenzie, pp. 135, 145, 153. Krug von Nidda, Karsten's Archiv. vol. vii. p. 445.

son, and the place where he was assassinated. The remains of the *virki* or fortifications which he erected to protect himself from his numerous enemies are still pointed out to the traveller. But the Snorra-laug or bath, formed by the waters of one of the hot springs which have given a designation to this spot, is a still nobler monument of his ingenuity. This, according to the Landnama, was used as early as 960, but was so much improved by the celebrated historian as to receive his name. It is fifteen feet in diameter, and constructed of hewn stones closely fitted, and cemented with a kind of bolus found in the vicinity. It is also paved with similar stone, and surrounded by a bench formed of the same material and capable of holding upwards of thirty persons. Though 600 years have elapsed since its formation, the structure is still nearly as perfect as at first, and is often used by the natives.*

But this specimen of the skill of the old inhabitants is surpassed in interest by one of those wonderful productions of subterranean fire which are found every where in this country. We mean the cavern of Surtshellir, the largest and most remarkable, both in appearance and origin, in the whole island. It lies in a tract of distorted lava which has flowed from the Bald or Geitlands Jokul northwards into one of the sources of the Hvitau. In describing this cave we shall follow the account of the Danish travellers, which is the most circumstantial, and agrees in all important points with those of more recent visiters. At the entrance they found the roof fallen down about a gunshot in length, so that in this part it resembled a long rent twenty or thirty feet deep covered with pieces of broken lava. At the end of this was a dark opening thirty-six feet high and fifty-four wide, forming the mouth of the real cave, which has generally the same dimensions. Here they lighted a large wax-candle, brought with them from Copenhagen on purpose, and proceeded

* Landnamabok, p. 160. Henderson, vol. ii. p. 142.

into the interior, the roof of which was hung with stalactites, its walls glazed, and its floor covered with fallen fragments. They next passed a hole in the roof, and soon after came to two side-openings running at an acute angle with the main approach. The one on the right contained some bones of oxen and stones placed as if for a fire, but nothing else worth noticing; the other on the opposite side is larger and more curious, and is named the Viiget or Intrenchment Cave, from a wall built across it at a little distance from the entrance. As it is about eight feet above the floor of the principal vault, and is darker, it formed the most secure retreat for the robbers and other outlaws who in former times frequented this place, and is mentioned as such in the Sturlunga Saga.* In it they found a number of bones of sheep and oxen, retaining their original form and colour, but so much decayed as scarcely to bear their own weight, and easily rubbed down by the fingers. It is fifty fathoms long, and in the middle there is a small pool of water, nearly two feet deep, but frozen at the bottom.

After leaving this chamber they proceeded farther into the great cavern, when they soon encountered a wall dividing it into two apartments, one of which, however, soon terminated. In the other they passed some more openings in the roof, and a pool of water, also frozen at the bottom, which had stopped Olafsen on a former visit, being then too deep for him to wade. To this point the walls had been found glazed and the roof adorned with various stalactites of lava, but here both of these appearances vanished. After passing the fourth opening the ground descended rapidly, the darkness increased, the air grew thick and close, and the cold became more intense. The floor was covered with ice, formed of curious five and seven sided cones or prisms, having much the appearance of the second stomach of a ruminating animal. At last they came to a heap of stones, near which was a piece of birch-wood retaining its form, but quite decayed and broken in two, showing that some time previously this

* B. v. cap. 46.

place had been visited by men. They repaired this pyramid, and left on it two coins, together with their seals impressed on wax. Henderson found the larger coin, the smaller, as he supposes, having fallen down among the stones, and also the impressions in wax, though nearly obliterated. About 220 paces farther on they reached the end of the cave stopped up with stones; upon which they returned, carefully pacing the distance to the last opening in the roof, where they got out and measured the remainder above ground. According to this estimate the whole length is 5034 feet, or rather less than an English mile, to which it must nearly approach, as there are several windings in the interior.

This cave was famed even in the first ages of Icelandic tradition, when it was believed to be inhabited by a giant named Surtur or the Black, in honour of whom one of the skalds named Thorwald composed a song and sung it at the mouth of the den. This jotun is probably that mythological person, the god of fire, to whom the Edda ascribes the destruction of the world, and who could scarcely have found a more appropriate dwelling. The fable probably arose from the name of the retreat, which properly is Hellerin Sortur or the Black Cave. In the tenth century, it found more dangerous inmates in a band of robbers named Hellismenn, who took up their abode here and lived on plunder, but who were at last waylaid in a neighbouring valley and slain. The peasants, however, still regard it as the abode of spirits, and never venture to explore its dark recesses.*

In this province, on the southern side of the chain of jökuls, are some remarkable places. Haukadal, where are the geysers already noticed, is also famous as the birthplace of the historian Are Frode, and near it are the remains of a bath dedicated to St Martin. Farther south is the old episcopal see of Skalholt, in a plain full of springs, near the union of the Bruarau with the

* Olafsen, th. i. p. 127-135, and plate xv., which contains a ground-plan. Henderson, vol. ii. p.189-198. Landnamabok, pp. 16, 220.

Hvitau. This was the first establishment of the kind in Iceland, having been founded in 1056; but the prelate, as already noticed, now resides in the capital, and the cathedral, said to have been the most magnificent building in the country, has been replaced by a small wooden church. The relics of the first bishop, St Thorlak, whose name is or was lately in the calendar, were, together with his coffin, long preserved here. This ancient capital of Iceland, the Athens of the North in the middle ages, is now a miserable village inhabited by three families. The traveller, turning round the corner of a hill, is surprised when his guide exclaims that here was the residence of the learned and pious of former days! But its glory has now departed, and the large burying-ground with its tombs alone tells of its comparative greatness!*

At some distance westward, and on the banks of the lake formerly described, lies Thingvalla, the court valley, the scene of many of the most interesting recollections of the Icelanders. It is a wide plain composed entirely of lava, the different layers of which are seen in the sides of the rents and fissures that every where intersect it. On the east and west it is bounded by two of the largest of these, the Hrafnagiaa and the Almannagiaa, running parallel to each other at about ten miles' distance, and is divided by the river Oxeraa. The general assembly of the nation was instituted at this place in the year 928, and continued to be held in the open air till 1690, when a house was built for that purpose, but in 1800 it was transferred to Reikiavik. The consistory for ecclesiastical matters was convened on the east side of the river, the political court, or Lavret, on the west. The inhabitants still point out the Law-mount or Lagbierget, where causes were tried; the island Thorlevsholm, in the Oxeraa, on which criminals were beheaded; the pool in the same river where female offenders, sewed in a sack, were drowned; and finally, a high rock on the east side of the Almanna-

* Olafsen's Reise, th. ii. p. 228. Hooker's Travels, vol. i. p. 197-201.

giaa, from the top of which such unfortunate persons as were condemned for witchcraft were precipitated into the burning pile. The road to the north still crosses this lonely plain, winding amongst the fissures in the lava, or descending the stair-like chasms by which alone they can be crossed. But the assemblies that formerly enlivened it are now no more, and in this "spot of singular wildness and desolation, on every side of which appear the most tremendous effects of ancient convulsion and disorder, Nature now sleeps in a death-like silence amid the horrors she has formed."*

The country to the south-west of the Hvitau is a great plain, watered by the Thiorsau, Rangau, and Markarfliot, and, unless where wasted by the eruptions of Hekla or Tindfiall, is fertile, though liable from its lowness to be overflowed by the rivers. Breidabolstadr, and Odda the residence of Sæmund Frode, the author of the old or poetic Edda, are the only places worthy of notice in this district. Near the coast are the Westmanna Eyar or Islands, so named from ten Irish slaves who took refuge here after killing their master, Thorleif, in the year 875. They are fourteen in number, but only four are covered with grass, and not more than one inhabited. This and the rest of the group are mostly lava, amid rocks of which is the harbour usually frequented by foreign vessels for the purposes of the fishery. From their unprotected situation, these islands were much exposed to the depredation of pirates; and in 1627 some Barbary corsairs landed upon them, killed the priest, Jon Thorstensen, one of the best poets of his time, and carried away many of the natives. After this, a small castle was built, which has now fallen into total disrepair.†

The Syssels of West and East Skaptaafells, comprising the greater part of the south coast, are the most thinly peopled in the island, the soil being almost entirely de-

* Mackenzie, pp. 318, 209. Olafsen, th. ii. pp. 171, 227. Henderson, vol. i. p. 31.

† Olafsen's Reise, th. ii. p. 131. Gliemann, p. 195.

stroyed by ice or by the lava of the jökuls, whilst the numerous sand-banks and breakers prevent the successful prosecution of the fishery. Portland's Huk, latitude 63° 25', is the most southern point in Iceland, but remarkable for nothing else. Near it is the mountain Dyrhoiar, rising from the flat sandy beach, and named from the two door-looking holes which pierce its summit. Thykkabaer was formerly a convent of Augustine monks, founded in 1169, whilst the Benedictines, in 1185, took possession of Kirkiubaer, where is a curious group of basaltic pillars, on one of which, placed at the church-door, an ancient Runic inscription is engraved. Here the Papar or believers in the gospel had formerly dwelt, and no heathen dared to reside on this holy spot, as all of them sickened and died. Ketell Fifiski, a Christian settler, at last took possession of it, and built a church here, probably the first in the land. Ingolfshofde is famous as the place where the first colonist landed in Iceland, and resided for some time, and on a hill named Godaberg, in the vicinity, is seen an old pagan altar. The only other place we shall notice is Loon, near the Westurhorn, the dwelling of Ulfliot, author of the first system of Icelandic law.*

The Northern Amt or Province contains the whole of the ancient division of that name, together with the most populous part of the former Eastern quarter, known as the Mule Syssels. It is separated from the Southern Amt by the deserts and mountains of the interior, and from the western by a line drawn along the valley of the Hruta Fiord to the sources of the Hvitau and Bald Jökul. Its extent is about 3500 square miles, on which lived, in 1801, 16,075, and in 1806, only 15,860 inhabitants. The Mule Syssels, on the east coast, are intersected by numerous fiords, on whose banks the dwellings of the natives lie scattered, in greater profusion than in any other part of Iceland. Diupavog, on the Beru Fiord, shut in by the lofty Bulandstindr and the sea, is a

* Olafsen's Reise, th. ii. pp. 72, 124. Gliemann, p. 198-201. Landnama, pp. 143, 310.

small trading village, remarkable for its curious trap veins or devil's walls, as they are designated by the neighbouring peasantry. At some distance in the sea is the island Papey, where the Christian fishermen are said to have dwelt, and though only about a mile in diameter, is the largest on that coast. Eskifiordr, one of the four towns of Iceland, lies in a tolerably fertile plain, at the foot of the Holmafiall, a curious four-sided pyramid-looking mountain, about 3000 feet high. The Rode or Reidar Fiord, forms here a good harbour, and the town carries on a considerable trade.

The vale of the Lagerfliot, commonly called the Herred, is accounted one of the most beautiful and fertile districts in the country. The river, like a peaceful lake, flows down the centre, adorned with many small islets, whilst on its sides the grass fields alternate with clumps of birch, willow, and juniper. The first of these trees is often seen twenty feet high, and wood fit for building houses is found here alone. The streams of lava which have desolated so many of the finest parts of Iceland, have not yet forced their way into this peaceful retreat, where the farm-houses are seen in close succession, without those frightful deserts that divide them in other quarters. Numerous passes lead through the hills into the valleys on the south coast; and it often happens that the inhabitants of these have to enter the Lagerfliot by one ravine, and leave it by another, before they can go into the next vale, because the mountain-wall that divides them is on some occasions altogether impassable.*

Notwithstanding its situation, the northern coast has many advantages over the southern and even the western parts of the island. The climate is but little inferior, the soil is deeper, the vegetation more luxuriant, and reaches higher up the sides of the hills, which are freer from snow. It is also intersected by many fiords and

* Olafsen's Reise, th. ii. p. 69. Krug von Nidda, Karsten's Archiv. vol. vii. p. 433.

rivers, in which fish are very abundant, and its inhabitants in good seasons are thereby well supplied with food. We have already mentioned the most considerable firths and rivers, and also the volcanic phenomena of the Myvatn Lake and its neighbouring mountains, so that we have only to notice a few of the more remarkable localities. Husevik, on the eastern side of the Skialfande Bay, is one of the principal trading towns; but as the coast is thirty feet above the level of the sea, and the landing thereby rendered difficult, all the goods must be conveyed to and from the ships by means of a crane. Here Gardar landed in 864, and from the huts which he erected for passing the winter the place received its present name. The warm springs at Graeniadarstadir, in the stream flowing from which the trouts are said to become so fat that the natives cannot eat them, and the small lake of Liosa Vatn, which ebbs and flows with the tide, are the most curious phenomena in this part of the country.*

Akureyre or Eyafiord, is, next to Reikiavik, the most important commercial station in the island, and possesses a good harbour. It contains about twenty edifices constructed of wood, three of which are warehouses, and near them are some gardens. The chief articles of export are salt beef, fish, oil, tallow, wool, woollen goods, and skins. Being situated at the end of the long narrow Eya Fiord, it is often difficult for ships, particularly in spring, to reach it, owing chiefly to the numerous mountain-torrents that fall into the bay. The depth of water is usually eighty fathoms, and the position of the town is in lat. 65° 40′ 30″ N., long. 18° W. from Greenwich. On a hill in the vicinity is an old church, in which is a curious statue cut out of wood. It is the size of life, and represents a man crowned, with his face to the altar, and his right foot on the neck of another lying on the ground. The figure is said to be that of St Olaf trampling on one

* Olafsen's Reise, th. ii. p. 9. Gliemann, pp. 208, 209.

of his heathen foes; and this king is believed to have sent it along with the materials of the church.*

Siglu Fiord, on the promontory westward from the Oe Fiord, is one of the best fishing-stations for herrings, which usually arrive on the coast in immense shoals in the months of June and July; and it is said that one hundred and fifty barrels are often taken at a single hawl. Hofsos, on the eastern side of the Skaga Fiord, is a trading station, but with a bad harbour, and little frequented.† Holum, at some distance from the coast, is beautifully situated in the rich valley of Hialtadal. The place now consists of a few buildings, the most remarkable of which is the cathedral, built of red sandstone, with a wooden tower, and the house of the last bishop, also constructed of timber, the only one of two stories in the island. The church was repaired in 1757, and is one of the best in the country. The altar-piece, cut out of wood, represents the crucifixion, and is said to have been a present from the Pope to Jon Oegmundson, the first bishop, who was elected in 1106. Northward of this edifice is a long hollow way, formed by the last catholic prelate, Jon Areson, as a retreat from his enemies. Before the altar is the tombstone of Gudbrand Thorlakson, the translator of the Bible, whose memory is still revered by his countrymen for his pious and benevolent labours. In the printing-office here, he completed the first edition of the Scriptures in his native tongue, and two other impressions afterwards followed. The bishopric, and also the school, which was founded at the same period, after existing nearly seven centuries, were suppressed in 1801, being united with those in the south, to the great inconvenience of the northern provinces. At Hof, in the neighbourhood, is an old sacrifice-stone of the heathen; whilst south of it, at Aas, a Christian church was erected in 985, fifteen years before this religion was established by the Althing.‡

* Olafsen, th. ii. p. 8. † Mackenzie, pp. 234, 235.
‡ Henderson, vol. i. p. 105-113. Ghemann, p. 216.

Only a few other places in this province are any way remarkable, as the small trading town of Skagastrand, on the east side of the great bay of the same name; and Breidabolstadr, on a small lake, where the first printing-press was erected in 1543 by Jon Matthieson, a Swedish priest. A little southward from this, on the Videdalsau, is an old castle, almost the only thing of the kind in the island. It stands on a basaltic rock about sixty feet high and 400 yards in circumference, with a fine spring of water in the centre, and is thought to have been erected either during the wars of the Sturlunga, in the 12th and 13th centuries, or more probably at a still earlier period.*

The West Amt comprises the whole of north-western Iceland, and corresponds with the more ancient division of the Westfyrdinga Fiordungr. It is the smallest of the three provinces, containing only about 1400 square miles, and a population which in 1806 amounted to 13,978, being almost exactly the same as it was five years before. Besides Sneefieldnes and the other districts on the Faxa and Breida Fiords, it includes the whole peninsula, which is almost detached from the rest of the island, the distance from the Gils Fiord to the opposite coast being only seven miles. The inhabitants accordingly have little intercourse either with their countrymen or with strangers, and retain more of the original manners of their Scandinavian ancestors than are found in other places.

As already mentioned, this peninsula is visited only by a few strangers, and those generally of a character that renders them very unwelcome to the natives, being criminals who have taken refuge in this wild district, where the magistrates cannot exercise their full authority. Travellers on this account are regarded with suspicion and even terror by the simple inhabitants, many of whom have never been out of their own parish. Their principal employments are feeding cattle, fishing, and manufacturing articles from the drift-wood found on

* Mackenzie, p. 235. Olafsen, th. ii. pp. 64, 66.

the coast, which they execute with great neatness, and in former times a considerable trade in this kind of commodity was carried on with no small advantage. On the eastern shore there are no places worth noticing till we reach the North Cape, which is about 1800 feet high, and composed, like most of the surrounding hills, of naked rocks. The country on the other side, named the West Fiords, has, from the number of those inlets by which it is intersected, been compared to an outspread hand, though this can give no idea of the immense quantity of smaller or secondary fiords that pierce it in every direction. The largest is the Isafiardardiup, the northern side of which is almost entirely covered by the lofty Snaefiall, whilst the south is fertile, and contains clumps of birch and mountain-ash, the latter sometimes sixteen feet in length. At Reikianes, a little eastward of Vatns Fiord in this bay, a salt manufactory was established in 1773. There were at first three pans, afterwards increased to thirty-two, warmed by the water of a spring in the neighbourhood, which has a temperature of 191° Fahrenheit. But this adventure, an almost solitary instance of the Icelanders turning these fountains to any use, was persevered in only thirteen years, when it was finally abandoned.*

In Bardestrands and Dale Syssels, on the north and east of the Breida Fiord, there are few remarkable places, with the exception of the island Flatey, which is distant about ten miles from the coast. It formerly contained a monastery, and in it, about the year 1440, the celebrated manuscript known as the *Codex Flateyensis* was written, which was afterwards carried to Denmark, and deposited in the Royal Library at Copenhagen. Many groups of small basaltic islands, mostly uninhabited, lie in the bay around it.

The promontory of Sneefield stretches nearly fifty miles into the sea, with a breadth varying from ten to twenty-five. A high mountain-range, probably a branch

* Gliemann, p. 230.

of the northern jökuls, runs along it, and terminates where the other meets the waves. This chain is closer to the northern coast, where it forms numerous elevated points, whilst on the south a more extensive tract of flat land intervenes. This is in some parts sandy, though in general wet and covered with an abundance of fine grass. It was from one of the islets in the Hvam Fiord, near Breidabolstadr, that Eric the Red sailed in 983 for the discovery of Greenland. To the westward of this is Helgafell, one of the greatest heathen temples in Iceland, where a remarkable sacrifice-stone is still seen. Thorolf, one of the first settlers in this place, believed that after death himself and relations would inhabit this mountain; on which account it acquired so sacred a character that no one was permitted to kill any species of animal on it, or even to drive them off when they took refuge there. Here also one of the provincial courts was held until the place was desecrated by blood shed in a quarrel.*

The coast near Stappen, a small trading town, presents some of the most singular and beautiful rock-scenery in the island. The Londrangar, two natural obelisks rising from the sea, first meet the traveller from the west, of which the largest is 240 feet high, and only about thirty-five broad at the base. The rocks at Stappen (which form the vignette to this volume) nearly resemble those of Staffa in the Hebrides. Curious groups of basaltic pillars, generally vertical, at other times inclined or horizontal, and cut by the waves into fantastic forms, line the coast: presenting an object of great interest to the geologist. Not less curious is the Saunghellir or Singing-hole, which is visited by all travellers. It is an egg-shaped cavity hollowed out by the wind in a sandstone cliff, and is fifteen feet high by ten broad. The entrance is by a small opening, and the inside is covered with inscriptions, mostly rhymes and magical characters, amongst which Olafsen observed the date 1483. When one sings or

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* Henderson, vol. ii. p. 68. Olafsen's Reise, th. i. p. 194.

hums gently, the vaulted roof re-echoes the notes in a murmuring melancholy tone.*

Myre Syssel, which alone remains to complete our circuit of the island, receives its name from the marshes that abound in its western and south-western districts, to such an extent as to make many places impassable, unless in winter, when they are frozen over. It, however, contains the finest meadows in the country, on which the grass is sometimes found more than four feet high. This region, lying in the line which joins Sneefield to the central jökuls, contains many volcanic cones, hot springs, and other marks of the agency of internal fires. In Hytardal is the volcano of Husafell, where the lava forms numerous caves, some of them of great extent, and near this is also the Elldborg or "fortress of fire," so named from the resemblance of its crater to the walls of a castle. On Western Skarsheide there are also seven curious cones, formed of fragments of vitrified lava, and extending in a direct line from east to west. The Baula mountain in this syssel has hitherto proved inaccessible, and the natives believe that on its summit is an entrance to a rich and beautiful country, constantly green, abounding in trees, and inhabited by a dwarfish race of men whose sole care is feeding their flocks of sheep.†

* Olafsen, th. i. pp. 145, 146. Henderson, vol. ii. pp. 36, 45. Mackenzie, p. 173-175. Landnama, p. 76.

† Hooker, vol. i. p. 299.

CHAPTER III.

Colonization of Iceland, and History of the Heathen Age.

Peculiarities of Icelandic History—Not the Thulè of the Ancients—Naval Expeditions of the Old Scandinavians—Naddod discovers Iceland—Gardar—Rafna Floki—Papar, or British Christians—Ingolf, Founder of the Republic—Murder of Leif—Causes of Emigration—Mode of conducting it—Government—Division of Island—Hreppa—Poor-laws—Herads—Godar—Hereditary Magistrates—Courts of Justice—Old Oath—Lagmann—Althing—Christian Colonists—Thorwald, first Missionary—Olaf Tryggvason—Thangbrand—Gissur—Debate in the Althing—Conversion of the Nation—Heathen Manners—Religion—Temples—Sacrifices—Superstitions—Trials by Ordeal—Single Combat—Piratical Expeditions—Treatment of Women—Houses—Feasts.

The history of Iceland is distinguished from that of every other nation by some singular and striking peculiarities, arising, for the most part, from its situation and physical constitution. Separated from other countries by a wide and stormy ocean, it possesses no internal riches to induce strangers to seek out its lonely shores. With the exception, therefore, of a few transitory incursions of some wandering bands of pirates, no hostile fleet has ever approached its coasts. Its intercourse with foreign states is thus nearly confined to the peaceful relations of commerce, and even these are limited to a few of the neighbouring kingdoms. The internal distribution of the population, living in small unconnected hamlets, divided by long tracts of desert country, or almost impassable mountains; the want of large towns; and the scarcity of provisions, which rendered it impossible for even a few hundred men to remain congregated in

one place for a short period without producing a famine, have also impressed a peculiar aspect on its history. War, properly speaking, is unknown, the petty feuds and combats of the early chieftains scarcely deserving that name. Even these soon ceased; for the turbulent spirit of the ancient Northmen, which had been encouraged by the freedom of their first institutions, gradually disappeared under the security of a foreign government. In its annals, accordingly, we find few of those events which fill so large a portion of the chronicles of other countries more densely peopled, and placed in more immediate contact with rival powers. The contests of man with man give place to the picture of man struggling with the elements—the tempest, the volcano, and the earthquake—for a miserable existence, and yet preserving amidst all the vicissitudes of his lot the advantages of civilisation, literature, and religion. These facts give a moral interest to the history of Iceland, and invest it with a charm it would not otherwise possess. The most incurious cannot look with indifference on the spectacle of a people, seemingly condemned by nature to spend their lives in laborious poverty and ignorance, becoming the poets and historians of the age, and creating a national literature amidst the perpetual snows and lava fields of this remote island. Even the record of the physical calamities, the famines, pestilences, and volcanoes, that have ravaged this devoted land, thus acquire an additional interest from our admiration of the energy of spirit which could preserve the love of science amid such complicated misfortunes. The history of this community is also of importance as teaching us never to despair of humanity, and proving that no outward circumstances can preclude the cultivation of literature, and the elevation of the popular character by the arts of social life.

Notwithstanding the praiseworthy diligence of the native annalists, the ancient history of Iceland has not escaped those doubtful questions which abound in the early records of almost every nation. The Greek geo-

grapher Strabo relates the voyage of a citizen of Marseilles, named Pytheas, to some of the most distant parts of Northern Europe, and amongst others to the island Thule.* Relative to that country he brought back many wonderful reports, some of which are undoubtedly fabulous, whilst others contain much truth, though often exaggerated or distorted. Of this kind are his statements respecting the length of the day and night, which he makes equal to six months each, and also as to the existence of that chaos of earth, sea, and air, which there forms the boundary of the universe. This last has been supposed to be a description of those dense fogs by which the Northern Ocean is often obscured for many days. He is understood to have lived about the period of Alexander the Great; and many obscure notices of Thule are found in the subsequent Greek and Roman authors. Notwithstanding the scepticism of Strabo, who considered the whole story as fictitious, much discussion has been employed in modern times with the view of determining the various points of the voyage, and especially the locality of Thule, the utmost limit of the habitable world. A passage in the venerable Bede has caused many learned men to give this honour to Iceland, and believe that the Greek had visited its shores. But that this hypothesis is groundless appears from the descriptions of Thule in the classics, which, while they omit the most characteristic features of Icelandic scenery, contain many things quite inapplicable to this country. From its almost constant conjunction in these ancient authors with Britain, there is every probability that this land, if it ever had any fixed locality, and was not merely an indefinite name for the northern regions of the earth, must be sought among the islands on the north or west of Scotland. Without any further notice, therefore, of the ancient Thule, we will now pass on to the account of the first discovery and colonization of Iceland transmitted to us by the native historians.

* Much of the disputation about Thule seems to have arisen from authors not distinguishing the countries known under this name

The numerous bays or fiords that intersect the Norwegian coast rendered some kind of navigation indispensable to the inhabitants. All the intercourse of those ferocious pirates, calling themselves kings of the sea, the island, or the cape, who then ruled those regions in almost total independence on the nominal sovereign, was conducted by water, on which also they had their petty wars and plundering expeditions. These soon led them beyond the limits of their own land, and, directed only by the stars, they made their way to every shore where there was a foe to conquer or despoil. In their rudely constructed vessels they spread dismay through France and Britain, taking permanent possession of the Hebrides and Shetland. In one of these wandering excursions, in which the winds or waves were frequently the sole guides, the Faroe Islands were discovered, and from their convenient harbours and position became a favourite retreat of the vikingr, or sea-robbers. One of these, Naddod or Naddoc, who had there found a refuge from the numerous enemies his piracies had created, was, when returning from Norway in 861, driven by a tempest far from his course. He seemed lost in the vast ocean, when an unknown land rose from the waves, towards the eastern shore of which he directed his vessel. Entering a bay, afterwards distinguished as the Reidar Fiord, the wanderer ascended the mountain of the

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at different times. In Strabo, Tacitus, and the other Greek and Latin authors, down to Claudian, it seems to be some part of Britain, inhabited, if we may believe the last, by Picts.

> ——— "Maduerunt Saxone fuso
> Orcades; incaluit Pictorum sanguine Thule.
> Scotorum cumulos flevit glacialis Ierne."
>
> De Quart. Cons. Hon. v. 34-36.

The expression of *icy* Erin in union with Thule is curious, as scarcely even a poet who had heard of Iceland, with its Jökuls, would apply this term to Ireland. In the time of Procopius and Jornandes, Thule was transferred to Scandinavia, the western part of the empire being nearly forgotten. At a still later period the monkish historians, Britain and the North being now too well known, conferred the name on Iceland.

same name, to obtain a view of the surrounding country, that he might ascertain whether it were inhabited. But all was still and silent, no sound was heard, no smoke rose above the thick woods that covered the valleys, no sign of man was visible. Disappointed in his expectation, he immediately set sail for Faroe, and a heavy shower of snow having fallen on the mountains as he was leaving the coast, he named his discovery Snæland, from this untimely appearance.

The next whom fortune conducted to the shores of that island was a Swede, named Gardar, who usually resided in Denmark; but having fallen heir, through his wife, to some property in the Hebrides, he sailed thither in order to recover it. On this voyage he also, after passing the Pentland Firth, was driven by a violent storm westward into the ocean, and at last reached the eastern coast of Iceland. Here, following the counsels of his mother, who was accounted a prophetess, he found a good harbour near the present Austerhorn. From this place, sailing round to the north, he entered the Skial Fiord, where he built a house, in which he passed the winter, at a spot called, on this account, Husevik. This took place in the year 864, and having, in the following summer, completed his circumnavigation, he returned home. He gave a very favourable account of the new region, which having now been proved to be an island, was named after him Gardarsholm.

These two discoverers of Iceland had visited it only by chance, and contrary to their own inclinations; but its fame, now diffused through the north, impelled the adventurous Floki to explore its unknown shores. Though a pirate by profession (vikingr mikil), and accustomed to long voyages, yet the untried path he had to pursue induced him to have recourse to supernatural direction, the compass being still unknown to these daring mariners. Before leaving his residence in Norway, he offered a great sacrifice to his tutelary deity, and consecrating three crows, with a mixture of prudence and superstition, carried them along with him as the

guides of his future progress.* He touched at Shetland, and Faroe, and when at a considerable distance from the latter, suffered one of the birds to escape, which directed its flight towards the islands they had last left. Judging that these were still the nearest land, he continued his voyage for some time, when he had recourse to the second for advice. It rose to a great height in the air, but perceiving no rest for the sole of its foot, returned to the ship frightened by the immensity of waters. The third, freed some days afterwards, proved more propitious, winging its way to the wished-for shore, where Floki, following its flight, soon arrived. Like his predecessors, he first touched on the eastern coast, and sailing thence, along the south and west, at last landed at Vatns Fiord in Bardestrand. Here he intended to settle, but having in his eager pursuit of the fisheries neglected to collect sufficient food for his cattle, they all died during the winter; and disheartened by this loss, he resolved to abandon the island. He however spent the next summer in exploring the country, to which, on account of the quantity of drift-ice he discovered in some of the northern bays, he gave the name of Island or Iceland, which it has ever since retained. Having passed a second winter near Hafna Fiord, he returned to Norway in the spring, where his ingenious method of directing his voyage procured him the surname of Rafna Floki.†

None of these adventurers had yet formed any permanent settlement in the island, though Floki subsequently took up his residence there. It seems to have been then entirely uninhabited, as they make no mention

* The crow was always a sacred bird in the north, but as few or none are found in Iceland, the poets and magicians there made the raven supply its place. Those authors who wish to cast doubt on these early records, represent this story as borrowed from that of Noah in the Sacred Writings. But besides the dissimilarity, we may mention that the inhabitants of Taprobane (Ceylon) are stated by Pliny to have used the same artifice when traversing the Indian Ocean.—Vid. Hist. Nat. lib. vi. cap. 22.

† Landnamabok, p. 5-10. Torf. Hist. Nor. tom. i. p. 94-99. Crymogea, pp. 9, 10.

either of having experienced opposition in landing at the different points, or of seeing any people in their researches on shore. When the Norwegian colonists, however, some time afterwards, settled in the country, they found in many places signs of former visitors; consisting of fragments of books in the Irish language (beckor Irskar), of bells, crosiers, and various other articles. From these relics it has been supposed that the adventurers must have been Christians either from the Western Isles of Scotland or from Ireland; but as they left no remains of houses or churches, they were probably merely temporary residents. Some imagine that they were fishers or pirates, who had taken up their abode there only for a few weeks or months in the summer; whilst others believe that they were monks, who sought for that holiness in the remote islands of the ocean which they could not find in communion with their fellow-men.*

Neither the repulsive name which Floki had conferred on Iceland, nor the still more unfavourable reports of its soil and climate which he spread abroad on his return, prevented others from following in his steps. This was no doubt partly owing to the different account received from his associates, one of whom, Thorolfr, asserted that the richness of the soil was such that the very "grass dropped butter." The immediate cause of the next

* Landnamabok, p. 2. Crymogea, p. 21. These strangers were called Papa by the heathen colonists, it is said from Papa, the Pope. This derivation seems doubtful, as a tribe of the same name are mentioned along with the Petti, as inhabiting the Orkneys, where they were extirpated by the Northmen. The islands of Papey, on the south-east coast of Iceland, of Papay in Orkney, and many other places, are supposed to be named after them. The whole of their history is involved in obscurity, and perhaps the old annalists had their reasons for saying as little about them as possible.—Barry's History of the Orkney Islands, pp. 106, 107. The story of the conquest of this island, along with the Scandinavian kingdoms, by Arthur and his successor Malgo, found in Galfridus Monumetensis (Geoffrey of Monmouth), has as little truth or probability as the army of 120,000 soldiers sent from these countries or islands as he calls them. Vid. Hakluyt, vol. i. p. 1-3.

emigration however was one of those quarrels ending in bloodshed, only to be avenged by blood, so common in such times of war and violence. Ingolf and Leif were two cousins whose fathers had been obliged to leave their native province for murder; and the friendship of the parents, which descended to the children, was rendered more close by the mutual love of Leif and the fair Helga, Ingolf's sister. The two companions had joined in a piratical excursion with the three sons of Atli Jarl, one of the most powerful of the Norwegian nobility; and returning with great spoil, which was divided amongst them, it was agreed that the confederates should continue their expeditions together in the following summer. At a feast given by the cousins in the intervening winter, Holmstein, one of the sons of Atli, vowed, according to the custom of the country, that he would either wed Helga or no other. Leif was not slow in manifesting his displeasure at this declaration; and having soon after married the lady, with the consent of her brother, he thereby provoked still more the hatred of his rival.

The opponents having met in the spring, a battle ensued, in which Holmstein was slain, after which Leif and his friend set out on a plundering excursion. On their return they were attacked by Herstein, another of the brothers, who was also defeated and killed. By these repeated murders, Norway, where the relations of the deceased were very numerous, was no longer a safe residence for the two cousins, who had been condemned to banishment. Fitting out, therefore, a long ship, they set sail to explore that land now well known by the adventures of Floki. They arrived there in 870, wintered on it, and satisfied, that with all its disadvantages it was preferable to their former abode, returned to Norway to prepare for their final departure. Whilst Ingolf was disposing of their effects at home, the other made a voyage to Ireland, whence he returned with an immense booty and a famous sword, from which he was afterwards named Thorleif, or Leif of the sword. Owing to

these delays the year 874 arrived before they were ready to depart, and in that summer they sailed with their families and friends to lay the foundation of the Icelandic republic. Ingolf, unlike his associate, who never sacrificed to the gods, was not devoid of the superstitions of the period, and not only consulted the oracle before leaving his native land, but also took with him the consecrated pillars of his former house.* These, on approaching the island, he committed to the waves, determined to be guided by their motion in choosing his new abode. But being separated from them by a sudden storm, he was at first forced to land on a promontory on the south-eastern shore, named from this event Ingolfshofde, where he remained three years. At the end of that time, his servants, whom he had sent in search of the pillars, found them cast on the beach, near Reikiavik, the present capital, whither Ingolf, in obedience to the supposed divine admonition, immediately removed, notwithstanding the remonstrances of his servants, who had seen many more enticing spots on their voyage along the coast. In the interval, Thorleif had also built himself a house at a place named Thorleifshofde, where in the next spring he began to cultivate the ground. Having only one ox, he compelled his slaves, part of his Irish plunder, to draw the plough, by which harsh treatment they were so enraged, that having waylaid him and his friends in a wood, they put them all to death. Ingolf, on hearing of his misfortune, exclaimed, "What an unworthy fate, for a

* Named *Ondvegis sulur* or *Setstokkar*: these were two long pillars set up on each side of the principal seat, and projecting about six feet beyond the roof, and had the figure of the favourite idol carved on the top. This seat was generally opposite the entrance, and the fire burned in the middle of the house. The higher these pillars were, so much the more honourable was the master of the house accounted, and frequent quarrels were occasioned by them. Such was the passion for this ornament, that one of the first colonists sacrificed, or as it is said gave, his son to Thor, on condition that he would procure them for him. The god is said to have been propitious, and a tree twenty-one fathoms long, and two in circumference, was floated to the shore. Landnamabok, p. 134. Comp. pp. 498, 501. Olafsen's Reise, th. ii. p. 39.

brave man to fall by the hand of ignoble slaves! but such I have ever seen to be the lot of those who despise the sacrifices." Though disconsolate for the loss of his relative, and left, as it were, alone in a desert, he did not spare the murderers, but pursuing them to the Westmanna Islands, where they had taken refuge, cut them all off. Having thus avenged the slaughter of his friend, he returned home and appropriated to himself all the country from the river Olvusa to the Hval Fiord.*

Ingolf did not long remain without companions in his island-dwelling; for the ambitious projects of Harold Haarfager, who, not content with the authority enjoyed by his predecessors on the Norwegian throne, endeavoured to reduce to complete subjection the inferior kings or jarls, and to impose a heavy tribute on them, caused many of their number to look for peace and freedom in other lands. The extensive bays and numerous islands that surround the Norwegian coast, especially in the vicinity of Trondheim, were the spots where the ancient spirit of the north and generous love of independence had struck the deepest root. When, therefore, the decisive battle of Hafurs Fiord had destroyed all hopes of liberty at home, the chiefs who escaped that bloody day, heard with joy that their bold countrymen had settled in a land whose waters swarmed with fish, whose mountains were clothed with wood, and where "men had nothing to fear from the oppression of kings or tyrants." Whilst the reasons for emigration were principally felt by those sea-born heroes who had most to dread from the vengeance of the victorious monarch, it was only they who could undertake the voyage; and as this adventure often consumed five or six months, it could not be attempted

* Landnamabok, p. 10-19. Aræ Frodes Schedæ, p. 6, &c. Torf. Hist. Nor. tom. ii. p. 99-103. Crymogea, p. 18-21. The tomb of this old hero is still pointed out on Ingolfsfiall, a high hill on the bank of the former river. It overlooks the surrounding bygds, and he chose it that at the resurrection he might have a better view of the land of which he had been the first inhabitant. Olafsen's Reise, th. ii. p. 132.

except by those possessed of large ships, and who also were able to provide sufficient stores. Hence the persons who colonized this island were not the mere refuse of the mother country, but the best and bravest of Norway's sons, who, proud of the freedom they had inherited from their fathers, sought to secure it amid the icy deserts of the north.

Numerous chiefs, accompanied by their friends and dependents, continued to flock towards Iceland for sixty years, when the causes of emigration having ceased, and the best ground being occupied, it gradually stopped. Among these adventurers there were many Swedes and Danes, and several natives of the British isles, from whom some of the present inhabitants claim their origin.* The emigrants from Norway were at one time so numerous, that Harold, fearing the depopulation of his kingdom, forbade any one to leave it without permission, and imposed a tax of five aura or ounces of fine silver on all who went to settle in the new colony. But the king's orders were of little avail; those who had dared to oppose his arms not being much inclined to respect his edicts or proclamations.†

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* Landnamabok, pp. 26, 29, 30, &c. Henderson's Travels, vol. ii. p. 132.

† Landnamabok, p. 379. Aræ Frodes Schedæ, ch. ii. iii. The colonists usually took the Shetland and Faroe Isles in their way; so that the voyage must have been from seven to eight hundred miles long, performed in vessels little better than open boats. As there is no mention made of any shipwrecks, the pious Arngrim Jonsen ascribes their preservation to the miraculous interposition of Providence, guiding them, like the Israelites of old, from Norwegian slavery, through the immense and raging ocean, to this Canaan of the north:—Sine amusio, et pyxide nautica, vel gnomone Magnetico, huic orbi nondum cognito; sine antlia, ad sentinandas naves, nondum his inventa hominibus.—Ut manifestius appareat, primarum coloniarum successus, singulari Dei favore directos esse. Vid. Spec. Isl. pp. 86, 87, which may almost be translated in the following words of an old poet of our own land:—

What should we do, but sing His praise
That led us, through the watery maze,
Unto an isle so long unknown,
And yet far kinder than our own.

The manner of conducting these colonies was singularly characteristic of the people and the period. The chief was generally some celebrated pirate or rebel, who found it no longer safe to reside in his native land. He was accompanied by his relations and other freemen who had been his associates in former marauding excursions, and were still ready to follow him in any adventure. Having disposed of all their immovable property at home, and collected their servants, slaves, and cattle, they embarked along with their whole family. The more superstitious also carried with them part of the materials of the temple dedicated to their favourite deity, and particularly the earth from below the altar on which the images of Thor or Odin stood. The situation of the new settlement, too, was usually committed to the choice of the same divinities, manifested by the agency of the winds and currents. As soon as they came within sight of land, the commander of the ship, invoking Thor, cast into the sea the sacred pillars which had adorned the paternal seat in their former mansion, and wherever these were thrown on the shore, there the gods were understood to have decreed that the new colony should be established.* Their first employment was to take solemn possession of a portion of the unoccupied land, either, as they said, by surrounding it with fire, or by raising heaps of stones on its boundaries. This territory the leader afterwards divided among such of his followers as were freemen, reserving part for himself.†

In these customs we see the true spirit of the enter-

Where He the huge sea-monsters racks,
That lift the deep upon their backs;
He lands us on a grassy stage,
Safe from the storms and "tyrants' rage."
The Emigrants, by And. Marvel.

* Many instances of this are found in the Landnamabok (pp. 14, 20, 210, 208, 354), the Eyrbyggia (p. 8), and other sagas.

† Landnamabok, pp. 207, 230, 315. Hist. Eccles. Isl. vol. i. p. 8-10.

prise, and the germ of the future constitution of the republic. It formed no nest of pirates, but a new land to be cultivated in peace, where, according to the old custom of the North, every man might live in his own district (herad), under his own chief. Many of the first settlers had, however, taken possession of larger tracts of ground than they could make use of in any reasonable time; and as the evil effects of this soon became apparent, the inhabitants, following the advice of King Harold, allowed no man to appropriate more land than he could surround with fire in one day.*

As long as there was room enough in the island, and no man needed to encroach on his neighbour's possessions, this patriarchal form of government under their pontiff-chieftains sufficed for all the wants of the state. None of the original colonists had so much power or influence as to endanger the liberty of the others, and each occupied that portion of ground which pleased his fancy, in perfect independence. Almost all were of Norwegian descent, and united by the bonds of kindred or of friendship, often in those ages a more enduring tie. Amicable compacts were long the only ones here known; and quarrels that could not be composed by the mediation of mutual friends, were soon decided by the sword. But when the inhabitants began to press on each other, these independent tribunals were found insufficient to preserve the order of society, and the necessity of some common government, some general laws, and supreme court of appeal, became apparent. In their native land they had been accustomed to assemble at the *Thing*, near the idol temples, to celebrate the great feasts that marked the close of the harvest, as well as the season of Jule, or the beginning of winter. These meetings,

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* Landnamabok, p. 322. The manner in which this was done, was either for a man to run round the boundaries with a torch, setting fire to the grass at the extremities; or a fire was kindled in the centre at six o'clock in the morning, and the chief occupied as much ground as he could encompass before the same hour in the evening, keeping always in sight of the smoke.

which were indeed almost indispensable in such a thinly peopled land, still continued among the colonists, and on them they modelled their political institutions. Thorstein, the son of Ingolf, first convened his countrymen at Kialarnes, in the southern part of the island; but the regular assembly, or Althing as it was called, was instituted by Ulfliot, to whom the Icelanders intrusted the important charge of providing them with a form of government. Though already in his sixtieth year when his wisdom and integrity procured him this distinguished honour, he undertook a voyage to Norway, that he might study to more advantage the institutions of the parent country. Here during three years he sat at the feet of Thorleif the Wise, and on his return to Iceland, framed, with the aid of Grim Geitskor, a code of laws which, in the year 928, was accepted by the national assembly, now transferred to Thingvalla.*

The Icelandic legislators, following the natural boundaries of the land, divided it into four parts or fiordungar; each of these was again divided into three, except the northern, which, on account of its size, was separated into four, in each of which there were three principal temples or hoffs; and these thirds were again subdivided into smaller sections or hreppar, generally ten in number, and nearly corresponding to the modern parishes. In every one of these divisions there were magistrates, in whose election the popular voice had more influence than in the mother-country. As the laws of Ulfliot were not committed to writing till nearly two centuries after his death, there is considerable difficulty in pointing out the limits of the authority and the duties of these officials. The inferior magistrates were the hreppstiorar, five of whom were chosen by the people in each of the corresponding divisions, and who were required by the law to be men of wisdom and integrity, and also possessed of a certain amount of fixed property, unless the former qualities were so conspicuous that

* Landnamabok, pp. 299, 300. Crymogea, pp. 56, 75, 80.

this last might be dispensed with. Besides distributing justice to the inhabitants of their district, they supplied in some measure the place of censors, having charge of the public morals and the care of the poor. In a country where the bounties of nature are dispensed with so sparing a hand, and where it requires the utmost exertions of every individual to provide even the necessary food and clothing, poverty, when caused by negligence or crime, was held as a political offence. The statutes on this subject form one of the most curious portions of Icelandic legislation, in which the influence of physical situation is most clearly manifested. These laws regarded either the prevention of pauperism, or the support of those who had, without any fault of their own, fallen into want. For the first they provided by depriving culpable paupers of all the rights of citizenship, excluding them from the assemblies of the people, depriving those children who had been brought up by begging, of all claims to inherit property, until they had gained their food for three years by more honourable means; forbidding any one to relieve beggars, and subjecting them to arbitrary punishments so severe, as sometimes even to cause their death.* For the second they instituted a scheme for insuring property against those accidents to which it was most exposed; whereby the inhabitants of each hrepp were bound to assist in repairing the loss sustained by any of their number, in cases of fire or the destruction of their cattle by storms or pestilence, a jury being appointed to estimate the damage within fourteen days. When, notwithstanding these precautions, any one was reduced to want by old age, disease, or unavoidable contingencies, the magistrate saw him provided for by his relations, or, when these were unable, at the public expense. But, in order that the hrepps might not be too heavily burdened, they could exclude any one from

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* Lex de ejusmodi mendicis impune castrandis etiamsi cum eorundem nece conjunctum foret. Tit. de pup. cap. 33. Ne videlicet hostiatim vivendo liberos gignent similes parentibus. Crymogea, pp. 67, 68.

settling in their bounds who was likely soon to become dependent on such aid.*

The next superior magistrate was the prefect of the provinces or herads. As the extent of these divisions in general corresponded to the original division of the land among the leaders of the colonists, so did this office closely resemble that of these pontiff-chieftains. They were at once the judges and the priests of their respective districts; presiding in the provincial assemblies, and administering the sacred rites in the temples of the gods. Their office, in the language of the country, was called godard, and themselves godar, or hofgodar, reminding them that they, like the deity whose name they bore and whose laws they dispensed, should be models of wisdom, justice, and virtue. This station being in general heritable, the son succeeding the father, has occasioned the Icelandic republic to be named an aristocracy. The privileges connected with it were not considerable, and the revenue was very limited. It could be sold, and was often taken instead of the fine imposed for an offence. Most of the profit arose from the small tribute paid by each farm to the temple, part of which went to support the building and supply the sacrifices, and the remainder was considered as a compensation for his expenses in attending the Althing. Other sources of revenue were presents from those whose cause he supported, and a duty imposed on each ship that stopped to trade in his territory. But, generally speaking, his principal income arose from his large private possessions, and his influence was almost entirely of a personal nature. Hence it often happened that some other powerful chief not only obtained more authority in the province than the prefect himself, but had a larger body of dependents, as is related of Olaf Paa after his return from his far-famed expedition to Ireland.†

* Arn. Jon. Crymogea, p. 69-71.

† Laxdala Saga, cap. 8. Müller, Island. Hist. pp. 10, 11. Arn. Jon. Crym. p. 72. Landnamabok, p. 301. It says that in the

In these higher, as also in the inferior divisions, general meetings of the whole inhabitants were commonly convened once a-year at the principal temple. Extraordinary ones were held at other times and places when necessary, particularly on the occurrence of any murder or duel. The warning to attend these assemblies in the heathen period was a wooden mallet or Norway axe, named Thor's hammer (hamar Thors), afterwards changed into a cross, which, like the fiery signal of our Highland clans, each farmer was bound to forward to his neighbour, with a notice of the time and place of gathering. Most disputes were decided in these popular councils, where power and the influence of friends were often of more avail than truth or equity. Before a trial, the judges, parties, and witnesses, were all sworn to act in their several places without guile, fraud, or injustice. The form of administering the oath was this:—On the altar of each temple lay a silver ring weighing at least two ounces; this the judge dipped in the blood of a bull slain in sacrifice, and each in his turn touching it said, "So help me Freyr and Niordr, and that Almighty As (God), as in the present cause I shall act rightly, truly, and conformably to the laws."* No one, when called as a witness, was at liberty to refuse to give his testimony, whoever did so being prohibited from ever afterwards acting in that capacity, or from calling any honourable person to testify in his behalf. At the same time, the parents and other near relations of the parties were excluded from appearing.†

The next higher magistrate was the lagmann or lagsogumann, that is, the promulgator of the law. He

heathen times every one "gefa toll til hoffins sem nu til kyrkio tiund;" that is, "gave toll or tribute to the temple, as now tithe or teinds to the church."

* The original is, "Healpi mer sva Freyr oc Niördr oc hinn almattki As." By the last As or God is generally understood Odin, the leader of the Æsir or Asiatic conquerors of Scandinavia. Perhaps it was a kind of compromise between his worshippers and the party who still adhered to the more ancient Thor.

† Crymogea, pp. 61, 71, 72, 76-78. Landnamabok, p. 300.

was the supreme judge of the island, and president of the general assembly or Althing. His office was thus twofold, having the right, in union with the other chiefs, to declare and explain the law, or even to alter and amend it; whilst, as first magistrate, he was not only bound to enforce it, but to take care that it also should be observed by his inferior officers. During the two centuries that the laws of Ulfliot were preserved only by tradition, he was their great depositary, it being part of his office to recite them annually in the national assembly; and when they were subsequently committed to writing, the authentic copy was confided to his care. He was at first chosen for life, though afterwards for a shorter period, and was always regarded as the head of the republic, time being dated from the year of his election. His authority, which was not great, was almost limited to the sitting of the Althing. This assembly, the main point of national union, was, as we have already mentioned, annually held on a level plain, near the shores of the Thingvalla Lake, the place of meeting being pointed out by a rugged insulated rock, named the Laghierget or Law-mount. It generally commenced about the middle of May, and continued fourteen days; every freeholder having a right to attend, and to give his opinion on all the questions brought forward. This privilege was highly valued by the people, and those who did not avail themselves of it were despised and reproached by their neighbours. In this court all matters connected with the general interests of the island were discussed; the decisions of the inferior courts revised; disputes between two or more of them decided; and here any of the subordinate magistrates might be tried, and if found guilty, deprived of their office. The lagmann was chosen by this assembly, and Ulfliot is sometimes accounted the first of that order, though properly it was not till 930, two years after the introduction of his laws, that it was instituted. Thirty-one persons are recorded in the annals as having held this appointment during the 332 years that the republic

existed, and of these seven, amongst whom is Snorro Sturleson, the author of the Edda, were twice chosen.*

Such were the institutions and government of the Icelandic commonwealth, which, though formed in what we are wont to consider as an age of ignorance and barbarity, is yet worthy of more attention than it has obtained. "But fame," it has been well observed, "is not the portion of indigent nations, especially when remote, unconnected with the rest of mankind, and placed under a rigorous climate."† The reputation of the poets and historians who sprung up under its sheltering influence, and whose writings shed a solitary gleam of light over that the darkest period of European history, might have merited for it a better fate. They have indeed, in some measure, rescued it from oblivion, but this was effected rather because they illustrated the history of other lands than of that which gave them birth. Many things in these institutions were undoubtedly borrowed from the old customs of the parent land,—a proof of the wisdom of the legislator, who sought not what was new, but what was useful and fitted for the nation he had to deal with. The habit of meeting in courts at certain seasons, to confer on the common weal, was frequent in all the tribes of Scandinavian descent, and had a deep root in the social dispositions of the people. In Iceland, the scattered situation of the huts, and lonely life of the inhabitants, rendered it still more necessary and desirable. But here they assumed a freer character than in Norway, where, from time im-

* The names and date of election of those before the introduction of Christianity were Rafner, 930; Thorarin, 950; Thorkell Mane, a grandson of Ingolf and son of Thorstein, who first called an assembly, 970; Thormod, son of the last, 983; and Thorgeir, in whose time heathenism was abolished, 996. Arn. Jon. Crymogea, pp. 73-75, 80, 81. An. Island. Reg. Langebek Script. Rer. Dan. tom. iii. pass. Aræ Frodes Schedæ, p. 15. Wheaton's History of the Northmen, p. 36-41. Another court was held, on some occasions, in the quarters, named Fiordunga-thing, but it is little known, and seems to have had no regular place in the constitution.

† Mallet's Northern Antiquities, vol. i. p. 154.

memorial, the most powerful proprietors had nominally acknowledged the superiority of the king. If the reins of authority were too loosely held, and violent, ambitious men were sometimes able to set the power of the magistrate at defiance, the same, it ought to be remembered, happened in an equal or even greater degree in all the other countries of Europe. If part of its stability is to be ascribed to the peculiar circumstances of the settlers, it is nevertheless remarkable as the first instance of a free nation united solely by moral ties; and a knowledge of their mutual interests. There was no external interference which, exciting a spirit of patriotism, might contribute to preserve its union. It relied solely on its internal principles; particularly a deep-felt reverence for the law; and it is probable that but for foreign interposition it might have subsisted a still longer period, and recovered from those intestine dissensions which hastened its fall. These arose from what appears to have been its greatest defect, the want of any counterpoise or check to the power of the hereditary magistrates or aristocracy.*

The next event of importance in the history of the island is the introduction of Christianity. Several of the original colonists professed that religion, and though exposed to the persecution of their heathen brethren, adhered to it till their death. But these few proselytes do not appear to have converted any of their countrymen, and even their own children, relapsing to the old faith, are known to have built temples, and sacrificed to the heathen idols. The first missionary in Iceland was Thorwald Kodranson, who having, during his travels abroad, been baptized in Saxony by a bishop named Frederick, persuaded the latter to accompany him on his return to his native land. Here Thorwald

* "Aussi régna-t-il long-temps en Islande plus de liberté et de sûreté que dans aucun état de l'Europe; et, lorsqu'on se rappelle que cet état démocratique fut fondé dans l'âge de la barbarie, on ne peut refuser son admiration à la sagesse qui presida à la fondation de la colonie d'Islande."—Depping, Hist. des Expéd. Mar. des Normands, tom. ii. p. 51.

converted his father and family, and, along with the stranger, made many journeys through the island on purpose to promulgate their opinions. They met with much opposition and many strange adventures, one of which we shall relate as illustrative of the belief and manners of the age. In the year 984, some time after his return, Kodranson celebrated his marriage with much splendour. Among the guests were two Berserker, named Hauke, more celebrated for their pretensions to magical powers than for their respect to religion, who challenged the Saxon to a trial of strength on the part of their respective deities. Confident in the goodness of his cause, the latter did not decline the contest, which was to be decided by the parties walking uninjured through a large fire. The bishop, sprinkling it with holy water, destroyed the efficacy of the Berserker incantations; and the magicians, according to custom, entering the flames, with drawn swords in their hands, were instantly consumed. The priest is said to have succeeded better, as not even his clothes were touched by the fire. His opponents were buried in a neighbouring cave, whose name of Haukagill still preserves the tradition of their fate.*

Their success in converting the nation was by no means commensurate with these miraculous endowments. When Thorwald endeavoured to persuade the Althing to embrace Christianity, the heathen party not only rejected his proposal, but engaged poets to turn him and his religion into ridicule,—a weapon characteristic of the time and country. Thorwald slew two of them whose satires had been most severe, close to the tent where the bishop was sitting so absorbed in his studies, that some drops of their blood fell on his book without

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* Landnamabok, p. 199. "Such incidents make an invariable part of the history of a rude age, and the chronicles which do not afford these marks of human credulity may be grievously suspected as deficient in authenticity."—Scott's Abstract of the Eyrbyggia Saga, Illustrations of Northern Antiquities (4to, Edinburgh, 1814), p. 483.

interrupting him. He afterwards reproved the too hasty zeal of his associate, though with little effect, as he next year killed another of his opponents in Norway, whither he had, along with the prelate, been compelled to retire by their machinations. This unchristian conduct dissolved the friendship between him and his spiritual father, who, returning to his own land, concluded his life in works of charity and devotion; whilst Thorwald, after many wanderings, entered the service of the Emperor Basilius at Constantinople, and at last died in a monastery he had erected.

The next attempts to christianize the Icelanders were made by Olaf Tryggvason, who endeavoured to convert not only his own subjects, but also those colonists connected with them by language and descent. His first agent was Stefner, a native of that island, who had been his companion in his former wanderings, and who, on sailing thither, found his object thwarted by a law passed in the Althing against all who should oppose the popular deities. Notwithstanding this obstacle, he began to demolish by violence the temples and images in some of the provinces; and being tried for his imprudent conduct, was banished to Norway. The lightness of the punishment proves the increasing influence of the Christian party, which was more plainly seen on the arrival of his successor Thangbrand. This missionary, it is said, was preceded by many strange prodigies, which, in accordance with the genius of the age, foretold the momentous change that was to ensue; and hence on landing he was very ill received by the heathen, who again had recourse to magic and poetry to oppose his progress. Though a priest, Thangbrand did not hesitate to take vengeance on the most satirical of the poets, and the conjuror also fell a victim to the resentment of one of his companions; but his violent temper engaged him in new broils, till he at last returned to Norway, accompanied by the most influential men of both parties. Here he complained to Olaf of the injuries he had sustained from the heathen, and the king, glad of a pretence

to promote his wishes, threatened to put those of them who were present to death, unless they would consent to be baptized. To this alternative they were glad to submit, and four of the noblest and best connected being retained as hostages, the others were dismissed.

Early next spring (A. D. 1000), the Christians returned to Iceland, where they arrived immediately before the meeting of the Althing. The people were still so adverse to their cause, that they were compelled to proceed thither on foot; and on approaching Thingvalla, they learned that their enemies had surrounded the assembly with armed men, to prevent them from attending. Upon this the leaders, Gissur and Hialti, secretly assembling their friends and dependents, proceeded with them, drawn up in order of battle, to the court. Here they found the pagans ready to receive them, and every thing seemed to threaten a decision of the controversy by the sword; but the heathen, though warlike and superior in numbers, hesitated to attack the determined band of their opponents, who, entering the valley, were gladly received into the tents of their friends. Next morning, mass having been performed on the Oxeraa by Thormod, a priest who had accompanied them from Norway, they advanced into the centre of the valley in slow procession, headed by two large crosses, which they set up in a fissure of the Lagbierget, or rock sacred to the laws. The court having assembled, Gissur and Hialti addressing the people, exhorted them to turn from their vain idols to the Supreme Ruler of the universe. This discourse naturally excited an extraordinary tumult in the assembly, each party proposing resolutions in favour of their own religion, and mutually renouncing all intercourse with their opponents. In this state of affairs, a messenger rushed into the midst of the combatants, crying out that fire had burst from the bowels of the earth, and was consuming all before it; upon which one of the idolaters started up, exclaiming that this was a manifestation of the wrath of the offended deities against the

impious despisers of their power. This speech was about to produce a great effect on the assembly, when Snorro, till then an adherent of the heathen, seeing in the blasted cliffs and yawning valleys around a refutation of the argument, cried out, "With whom then were your gods angry when the rocks on which we now stand were a glowing torrent?" His words, for all the people knew that the surrounding lava had flowed before the island was inhabited, changed the temper of the multitude, and the heathen, disheartened by the defection of one of their most powerful supporters, were glad to dissolve the court.

Neither party was idle during the remainder of that day and the following night. Halli of Sida having declined the dangerous honour, the Christians, for sixty ounces of silver, induced Thorgeir of Liosa Vatn, at that time chief magistrate of the island and a strong supporter of the pagans, to propose resolutions favourable to their cause. Having received the substance of these from Gissur and Hialti, he retired to his tent, where, shutting himself up, he pretended to be awaiting some oracle or revelation. The heathen, in the mean time, consulted on the best mode of repelling their adversaries, and resolved, by an extraordinary sacrifice, to propitiate their deities, to whose anger they ascribed their misfortunes. They therefore vowed, provided they obtained the victory, to immolate to these cruel gods two of the most illustrious citizens of each quarter of the island. This barbarous intention having been communicated to the believers, Hialti, that they might not be outdone in zeal, proposed that an equal number should consecrate themselves to the true God, not by a violent death, but by holy, pious lives, devoted to the conversion of their countrymen, which was immediately agreed to.

When the court met on the following day, Thorgeir rising up, addressed the people in an ambiguous and conciliatory strain. He pointed out the danger of dissension and internal war in a country like theirs, and the necessity of concord and agreement in religious matters.

Both parties, for different reasons, applauded his speech, and promising to abide by his decision, requested him to promulgate what decrees seemed best fitted to promote this end. Thorgeir then brought forward the laws he had received from Gissur, which provided, that all the inhabitants of Iceland should become Christians, and receive baptism; that the heathen temples and idols should be abolished and destroyed; and, lastly, that all open idolatrous worship should be punished with a fine. To conciliate the other party, he permitted them, in conformity with the old customs, to expose their children, to eat horse-flesh, and to worship their former gods in private; and stipulated, at the same time, that all the other ancient laws not inconsistent with Christianity were to continue. To these conditions both parties, bound by their agreement, were compelled to assent, and the whole nation would have been baptized at once, had not the inhabitants of the northern and eastern quarters refused to be immersed in cold water. These recusants, however, were subsequently admitted into the church at the thermal springs of Laugardal. Idolatry did not long survive its public rejection, and the concessions to it made in the laws just mentioned, soon fell into disuse, and were unanimously repealed.*

This sudden conversion of a whole people had undoubtedly been prepared by the improved knowledge of the Icelanders, as well as by their increasing disbelief in the old deities. This scepticism is shown in the repeated treachery of their supporters, noticed in the preceding narrative, and some singular illustrations of it

* Torf. Hist. Nor. tom. ii. pp. 378-381, 397, 417-435. Are Frodes Schedæ. The power of exposing their children was intrusted to parents both by the Greek and Roman laws, in the most civilized periods of these nations. It was seldom practised in the north, and chiefly by the poorest of the people, a rich man incurring much obloquy for doing so. It never happened if the father had taken the child in his arms or sprinkled it with water, which was a heathen custom. Müller, Island. Hist. p. 146. The other custom of eating horse-flesh was prohibited in Germany by Pope Gregory III. in 731, and by a council in England in 787, which also forbids cutting off their ears or tails.

occur in the histories of the early chieftains. Ingolf's grandson, Thorkell, lagmann of the island at the time of the first missionary, and universally respected for his virtue and integrity, when he was seized with a fatal disease, and felt the hand of death upon him, ordered his friends to carry him into the open air, where, commending his soul to that God who formed the sun, he expired. With more marked distrust in the ancient faith, Rolf, the son of Helgo, when his father consulted the oracle where he should place his residence, asked him if Thor had commanded them to winter in the Dumbshaf or icy ocean, whether he would have obeyed.* The minds of the people were thus prepared for the reception of a purer and more rational faith, and many seem to have adhered to the old worship, rather for the indulgences it offered to their sensual inclinations, than from any convictions of its truth. Hence Christianity needed only toleration to obtain an easy victory, and idolatry, no longer favoured by the state, expired without a struggle. With the new religion, a new period in the social development of Iceland also commences, during which it attained its highest pitch of intellectual acquirements and renown. With the worship of Thor and Odin, many strange superstitions, many singular customs and opinions passed away, or left but a faint shadow on the minds of the vulgar. Before concluding this chapter, we shall therefore collect a few of the more remarkable features of society during that early period.

The religion of the ancient Icelanders was the same with that which prevailed throughout all the nations of Scandinavian descent. The fundamental ideas of the whole system were the existence and moral character of one supreme God, the Allfader; the immortality of the soul; and a future state of retribution, according to the eternal laws of morality. But this belief was too simple and sublime to content such rude minds, and on it was erected a cumbrous and complicated system of

* Landnamabok, pp. 19, 229.

mythology. This seems to have originated, not so much from a deifying of the powers of nature, as from a desire to explain that contest of good and evil, of virtue and vice, every where apparent in the physical and moral universe. Unable to impute evil to the all-good, all-powerful Being, or to place a rival near the Almighty's throne, they conjured up an inferior order of tutelary deities, to whom they ascribed the origin of this mingled scene,—gods born with the earth only to perish in its ruins. These partook more of human weakness, and were sullied with a larger share of the passions and vices of their votaries, than they dared to ascribe to the All-father. They could be thwarted in their purpose, disappointed in their hopes, and their struggle with the powers of darkness, the cause of all present evil, was to issue in their final destruction. Did we not know that this system existed among the Scandinavians before the peopling of Iceland, and in all probability was brought with them from the Asiatic cradle of Odin and his heroes, we might be apt to trace much of it to the peculiar phenomena of that island. The awful spectacle of the volcanic eruption, when the quivering earth threatens to burst asunder and be dissolved, whilst the lightnings flashing from the lurid clouds, and the incessant roll of the thunder, betoken the sympathy of the firmament with the lower world, appears to have furnished those sublime descriptions of the last fated battle of the gods with Loki's giant brood. Nowhere is the contest of the destroying and renovating powers of nature more terribly displayed, and nowhere is some theory to account for it more likely to be required or produced.

Twelve appears to have been a favourite number with the northern nations. In their courts of justice there were twelve judges, whose places are still marked by upright moss-grown stones, and in heaven we find the same mystic number of superior gods and goddesses, each of whom had his own attributes, offices, and powers, entitling him to the fear or reverence of his votaries. First is Odin, at once mortal and immortal, blessing and de-

stroying, the creator and preserver of the universe, yet the terrible, the god of battles, the father of carnage. It seems doubtful whether this deity was merely the leader of the Æsir, exalted to a place in heaven by his grateful followers, or whether, as his varied attributes might seem to imply, he first assumed the name, and then usurped the honours, of a more ancient god.* Next to him in rank and authority, though much superior in the esteem of those rude warriors, is his son Thor, the god of strength and thunder. To him prayers and sacrifices ascended in richest profusion; to him they especially looked for help in the hour of danger; and innumerable names of towns, rivers, mountains, and warriors, still attest the favour he enjoyed.† Odin is also the parent of Niordr, ruler of the sea, who, with his son Freyr, the god of wind and rain, who guides the sun in his path, accompany him in the ancient oath. With these came a crowd of other deities; Bragi, like the Grecian Apollo, inspiring his worshippers with poetry, eloquence, and heavenly wisdom; Frigga, Odin's wife, whose offices correspond to those of Juno; and Freya, the goddess of love, and daughter of Niordr. But Balder, the most beautiful and virtuous of Odin's sons, is the subject of the most poetical of these fables. On his fate, that of the deities and the world they have formed depends, and his death renders their dissolution inevitable. This melancholy catastrophe sheds a gloom over the whole spirit of the northern mythology, and checks even the

* It is more than probable that Odin or Wodin is the same deity as the Budha or Boodh of the Indians, though the attributes of the latter, who would not kill a fly, are very unlike the stern god of the north. A comparison of the mythology of the north with that of the eastern nations, and the opinions of those Manichean sects who disturbed the peace of the early Christian church, is well worth the trouble to those who are curious in such matters; see Prichard's Egyptian Mythology, and Beausobre, Hist. Manich.

† Probably a third or fourth of all the persons mentioned in the Landnamabok have some reference to this deity in their names. His worship, it is thought, was established in the north previous to the arrival of Odin, and he continued the favourite deity both in Norway and Iceland.

riotous joys of the celestial banquet-hall. In dark mysterious strains the skald sings the destiny of Odin, and of those departed heroes whom he has associated in his joys and dangers in the spacious abodes of Valhalla. Nor is the hated thought dispelled by the remote image of a succeeding age of brighter auspice, when the Allfader, that mighty one whom they dare not name, shall gather from the flaming world the wise and virtuous of the earth, and call them to dwell with him in fields of joy and bliss.

It is probable that an allegorical interpretation of these mythic histories prevailed among the more highly gifted individuals; but the great mass of the people must ever have received them in a literal sense. Their evil effects in encouraging the violent manners and sanguinary habits of the age, were little if at all counteracted by the associated belief in the immortality of the soul and a state of future retribution. These salutary truths were so overlaid with fictions, that they were completely obscured, or perverted to an evil purpose, and thus deprived of their beneficial influence on society. The religious principles of the human mind were turned away from their proper object, and wasted on hurtful superstitions. The ignorant saw the working of some superior power in the most common phenomena of nature, and animated every object with an invisible agent. Hence the numerous methods for predicting the future, and the various forms of worshipping the mountains, woods, and streams.*

But these opinions did not remain a mere inactive superstition, without manifesting themselves in bloody rites, opposed to all the principles of humanity. Huge temples rose to the honour of the deities, of which two are said to have been 120 feet long and 60 broad, in addition to which there was a small chapel, or shrine, in which were placed the images and altar; the latter being covered on the top with iron, to resist the fire that was constantly kept burning. Here also were preserved the

* Landnamabok, pp. 66, 68, 100, 169, 341. Torf. Hist. Nor. tom. II. p. 149.

sacred ring, and a brazen caldron or vessel, to receive the blood of the victims, which was then sprinkled on the devotees. The sacrifices were in general bulls or white horses; but in cases of greater moment nobler offerings were employed to appease the offended gods. Before the shrine of the temple at Kialarnes, one of those mentioned above, there was a deep pit or well, the Blot-kellda, in which the human victims were drowned. At Thorsnesthing, in Western Iceland, the Blotstein, or stone of sacrifice, still remains, and, according to popular tradition, the stain of blood can never be effaced. It is of an oval form, somewhat sharp above, and over this the miserable victims had their backs broken before they were slain. Similar stones are found in many other parts of the land, particularly in the northern quarter.*

Besides the public and private worship of the gods, according to the established rites of the country, there were many magic arts, practised only by a few, and regarded with suspicion, or expressly forbidden in the laws. Of these the Disa-Blot, or worship of the Disen or goddesses who preside over the fates of men, and the Alfa-Blot, or that of the spirits of the land and water, who give success in housekeeping, were the more common and respectable. The oldest and most powerful rites were, however, the Seidur, in which, by means of charms muttered over the fire, or verses composed in a peculiar manner, persons either present or absent were bewitched, deprived of reason, or rendered unfortunate during their whole lives. This was considered as degrading its professors, and declared by Odin himself as unfit for gods or men, and therefore only practised by the females of both races. So much was it detested by the greater part of the community, that Harold Haarfager burnt his own son for this offence, together with the whole Seidur society to which he belonged. It was forbidden in the old Icelandic laws, and those convicted were tied up in a

* Crymogea, p. 61-65. Landnama, p. 94. Olafsen's Reise, th. i. p. 194; th. ii. p. 64.

sack, stoned to death, burnt, and their ashes cast into the sea. The reason assigned for this mode of punishment was that their spectres might not disturb the living; for Odin had affirmed that he could call these forth from the tomb. The runes, originally nothing more than a species of writing, were supposed by these rude nations to contain something supernatural, some secret charm of great power. These characters are said to have been introduced by Odin, who taught that by them he could heal diseases, quench fire, appease storms, arrest an arrow in its course, or awake the spirits of the dead; whilst other forms insured to his followers success in war, revealed secrets, or procured them the love of their mistresses. Similar spells were in frequent use, engraven on the prow of their ships, the handle of their swords, or worn like an amulet on the body.

Such are a few of these curious superstitions and ceremonies, of which not the least singular part is the universal belief they received. We now feel it difficult to conceive how the strongest minds could have been so convinced of their truth as to live in constant terror of their influence, far less how a father could, on such a ground, be induced to destroy his child. But the whole of these ancient histories are full of them, and they appear in some measure like the drapery in which every incident must be attired. They in fact form one of the most interesting chapters in the annals of the human race, and merit more attention than is usually bestowed on them. This short notice cannot be better concluded than with the following remark of Arngrim Jonas:—"These things have been related not in vain, or to disgrace my nation; but that we, the descendants of these men, may be excited to consider seriously how much we owe to the divine goodness which has freed us from this more than Cimmerian darkness, illuminating our minds with a ray of diviner light."*

Connected with these superstitions were the trials by

* Crymogea, p. 65. Olafsen's Reise, th. i. p. 248-250.

ordeal or single combat, modes of appealing to the deity practised in almost all rude and credulous nations, and not unknown in the mythology of the Greeks.* The most remarkable of the former was employed when any person accused of some secret crime wished to exculpate himself by oath, or to establish his veracity when asserting any thing of great importance on his sole authority. An oblong piece of turf was then cut from the ground and set up like an arch, under which he had to walk; if the turf did not break, he was accounted innocent, or his testimony worthy of being believed. Under a similar arch, supported, however, by their spears, covenants were often entered into, the parties mingling blood drawn from their hands; and this was more particularly the case in those confederations for mutual defence or revenge so common in these disturbed periods. Duels were also very frequent, after the country was fully peopled; for at first they acted on the advice of Erik of Gudala on such an occasion, "that it became not men to fight with each other whilst there were so few of them in the land." These contests were increased by the singular custom which permitted any one to dispossess his neighbour of his farm, unless the latter chose to defend it in single combat. The antagonists were usually confined within a certain space, from which they were not permitted to recede, and whoever first drew blood was accounted the conqueror, and became heir to all the effects of the vanquished. His friends, nevertheless, had a right to appeal from this decision, unless the victor slew, with one blow, a bull produced on the spot. In this manner Egill Scallagrim obtained great possessions; but the custom was abolished in the beginning of the eleventh century. There was a still more curious mode of con-

* In the Antigone of Sophocles (v. 270) we have the following allusion to this custom:

Ἡμεν δ' ἕτοιμοι καὶ μύδρους αἴρειν χεροῖν,
Καὶ πῦρ διέρπειν καὶ θεοὺς ὁρκωμοτεῖν.—

"Prepared we stood to grasp the glowing iron,
To walk through fire, to swear by all the gods."

test, in which the combatants, being enclosed in a large vessel, shut above, were only armed with short sticks. In a duel of this kind Thorgisell Orabein is said to have slain Randid, a celebrated Scottish warrior in Caithness.*

Though many of the emigrants had been celebrated before leaving Norway as vikingr or pirates, yet similar pursuits seem never to have prevailed in Iceland. Its distance from those coasts which were chiefly exposed to plunderers, and the want of materials for building the long ships used in war, were the principal causes of this abstinence. The Icelandic forests consisted of short-stemmed trees, almost completely useless for ship-building; so that it is mentioned as a rare occurrence in the Landnamabok, that Avang occupied land where trees grew of which he formed a vessel.† The driftwood from Asia and America was seldom sufficiently abundant to supply this deficiency, and even merchant ships were bought in other lands. Hence, those who might desire to undertake piratical expeditions had to proceed to Norway, where alone ships and men were to be found. Besides, such exploits had now fallen into disrepute, and even the name of viking began to be used as a reproach. Of those who still frequented the sea, the peaceable were converted into traders, whilst the warlike and adventurous, like the knights of chivalry on land, ranged the ocean, seeking for pirates to destroy, or for the weak whom they might protect. The Icelandic people, accordingly, even at this period, were by no means that band of rude, unpolished freebooters which some have chosen to represent them. On the contrary, for many centuries before their emigration, they had formed a connected society, the

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* Arn. Jon. Crym. pp. 107, 149. Landnama. pp. 70, 96, 211, 314, 371. In the first period of the colonization we only read of the duels of Geirmund with Kallak, and some time after of that of Thorstein Thorskabitr with the relations of the latter. Land. pp. 94, 127. Eyrbyggia, p. 22.

† Land. p. 29. The same is related of Hialte Skeggeson in the Kristni Saga, p. 68.

customs and manners of which they carried with them to their new country. As we have already seen, their judicial forms were sufficiently determined, if not by written laws, yet by old traditionary custom; and the whole process depended on many formalities, the omission of one of which, or even of a single word, was enough to vitiate any accusation. This close adherence to ancient habits, still a peculiar feature in the Icelandic mind, extended even to private life, and the manner of receiving friends, of conducting nuptial and other entertainments, and even of courtship, were fixed by established usage. Along with a love of ornament, some taste for the fine arts had developed itself, not merely in regard to their arms, but in their dress and houses. All were inspired with the sentiment of honour; and a desire to excel in poetry, history, and eloquence was universally diffused. To this, in their original country, was added a knowledge of agriculture, ship-building, and commerce, none of which, for physical reasons, long survived their emigration.

One unfavourable point in the constitution during this period was the prevalence of domestic slavery. But the unfortunate beings, often prisoners of war, who had been reduced to this state, were not unprotected by the law; their lives being valued at twenty ounces of silver, while that of a freeman was estimated at a hundred, or if a man of family, at three times that sum.

The condition of the weaker sex has always been accounted one of the surest signs of the state of civilisation and morality among a people. The respect shown them in the Scandinavian nations is probably unexampled in any country unenlightened by the true religion. Polygamy, though not prohibited, was far from being common. Fathers, or other near relations, could give the young women in marriage; but they were oftener left at their own disposal. Besides their dowry they received a present from their husbands, which remained their own property, and was carried with them in case of a divorce; and this separation took place whenever

the wife expressed her wish in a prescribed manner before witnesses. Harsh words, or any appearance of abuse, such as a slight blow given half in jest, was an excuse for this determination; and it is said that, by using their privilege, they in most cases obtained complete authority over their spouses. Wives and daughters frequently accompanied their husbands or fathers to the Althing and other popular assemblies, and were always present on festive occasions, where they generally had their own seats or rooms, though sometimes they sat mingled with the other guests. With the exception of some supposed witches, we never hear of women being injured, even when complaining most loudly against those who had slain their relations, and endeavouring to procure revenge for their death. The heroes delighted in their praise, whilst the skalds sung their fame, and the honourable titles of the female sex composed a considerable portion of the poetical terminology.*

In other points the Icelanders differed little from their Norwegian brethren, or even from their descendants of the present day. Thus, their houses were composed of wood and turf, or of stones cemented with clay, those of the wealthier being lined with deals, on which were frequently carved the warlike achievements of their ancestors. These dwellings were warmed by fires of wood, surturbrand or peat,—the last, it is said, being originally introduced by Einar, an Orcadian jarl, in the time of Harold Haarfager. The fire was enclosed in stones, on which occasionally water was thrown, the steam diffusing the heat through the house. These buildings were seldom of great dimensions, though some are described as being 120 feet long by 60 broad. Their food was principally fish and the produce of their herds; their drink whey, or beer imported from abroad. They often carried their hospitality to great excess, spending their whole fortune on a single entertainment. At their

* Müller, Island. Histor. pp. 142, 148, 149.

father's funeral, the sons of Hialte feasted 1200 persons during fourteen days, and Olaf Paa 900 for an equal time. Their employments were nearly the same with those of the present inhabitants, unless that they sometimes attempted to raise a little corn, which is now almost unknown.*

* Crymogea, p. 49-54. Landnama. p. 127. Some other details on the Scandinavian Mythology, and the manners of the allied nations on the European continent, will be found in a former volume of the Cabinet Library (Scandinavia, vol. i. p. 84). In Pigott's Manual of Scandinavian Mythology the reader will find the subject further illustrated by some interesting translations from Oehlenschlager's poem on the Gods of the North. Legis' Alkuna is also an important work, as comparing it with that of the Slavic nations.

CHAPTER IV.

Independent and Literary Age of Iceland.

Influence of Christianity—Attempts to subjugate the Island—Olaf—Harald Hardrade—Appointment of Bishops—Tithes—Marriage of the Clergy—Chief Magistrates—Defects of the Constitution—Feuds of the Chiefs—Wars of the Sturlunga—Snorro Sturleson—His Connexion with Norway—Contests with other Leaders—Assassination—Character—Events after his Death—Burning of Flugumyra—Subjugation of the Island—ANCIENT LITERATURE—Character of the Colonists—Traditions—Ancient Skalds—Influence of the Climate—Of Public Assemblies—Political Character of Sagas—Refinement of Language—How preserved before Writing introduced—Runes—Subjects treated of—Manner of collecting Information—Number of Songs—Mythic Sagas—Historic—Heimskringla—Are Frode—Sturlunga Saga — Landnamabok — Poetry — Fictitious Sagas — Skalds — Language of Poetry—Resemblance to the Anglo-Saxon.

THE changes produced by the conversion of the nation to Christianity were chiefly of that peaceable kind which leave no record on the page of history. Its civilizing influence gradually ameliorated the rude manners of the people, and expelled those superstitious rites and barbarous customs by which they were formerly disgraced. Humanity was no longer accounted a stain on the character of a chief, as happened to Olver Barnakarl, that is, "the children's old man;" thus named by his heathen contemporaries, because in his piratical expeditions he would not join in their cruel sport of tossing the captive infants into the air and catching them on their spear points. The use of single combat, which placed the weak entirely at the mercy of the

strong, was unanimously repealed in 1006 or 1011 by the Althing. The liberty of eating horse-flesh, a relic of their Asiatic origin, and intimately associated with the religion of Odin, together with the right of parents to expose their children, both permitted on their first conversion, probably through fear of famine, did not long survive. About ten years after this, Olaf introduced the canon law or Kristinrétt into his own dominions, and, having learned that various heathen practices still existed in Iceland, he resolved to use his influence in abolishing them. For this purpose he wrote to Skaptar, at that time lagmann of the island, and to others of the principal chiefs, on whom his representations had the desired effect.*

His success in these matters regarding religion seems to have encouraged St Olaf to engage in a more arduous though less honourable undertaking. Descent and language had always united the Icelanders to Norway, and given its rulers a considerable sway in the national council. Many of the chiefs, indeed, possessed property in both countries, and a still greater number of them had visited during their travels the court of the king, where they were very kindly entertained. As Iceland furnished a secure retreat to many of their rebellious subjects, the Norwegian monarchs seem to have regarded it with a jealous eye, and it was probably some deeper motive than the sarcasm of the poets that had induced Harald Blaatand at a former period to threaten to subdue it. This design was continued by Olaf, who, after the canon law which he had recommended was received, sent them as a present materials for erecting a church, together with a large bell which long remained in the place of public meeting. At the same time he invited several of the leaders to visit him, on whom he conferred titles of honour, whilst others were gained to his interest by secret gifts. When he had thus, as he thought, secured

* Landnamabok, p. 363. Torf. Hist. Nor. tom. iii. p. 63. Crymogea, lib. i. p. 101.

a sufficient party in the island, he sent Thorarin, who had been much in his service, thither in the spring of 1024, to persuade the islanders to acknowledge his supremacy. His envoy landed on the Westmanna Islands, and proceeding to the Althing, which was then met, saluted the people from the king, who, he said, offered himself to them for a ruler, promising at the same time his friendship and protection. The assembly, though taken by surprise, returned a respectful answer to the royal message, in which, however, they made no allusion to his offer. Thorarin, disappointed in this quarter, next addressed himself to the inhabitants of the northern district, whose friendship, he said, the king was particularly anxious to procure, and concluded by requesting them to grant him the small rock or island of Grimsœ. When the assembly was dismissed the people of the north collected, and Gudmund of Modruvalla, to whom his majesty had sent a flattering message, advised them to grant his request. But his brother Einar, taking a different and wiser view of the matter, showed that this island would only prove a post whence the Norwegian ships might harass their coasts, and the royal emissaries spread bribes and sedition over the whole country till it should be compelled to submit to his authority. This reasoning prevailed; when Thorarin, as a last resource, invited several of the chiefs to visit his master; but their suspicions being now awakened, this honour was declined, and it was only promised that a suitable deputation should wait upon him next year.

Olaf, though displeased that the Icelanders should resist his authority, now acknowledged both in the Faroe Islands and Greenland, dissembled for some time. Next season, the sons of some of the principal men being sent to him, he received them kindly, and gave them lodgings in the palace. When, however, they wished to return home, he told them that only one of their number, Geller, would be permitted, and that the others must remain as hostages until their friends should comply with his wishes. The youth was accordingly sent,

and made known to the Althing of 1026 the conditions prescribed by the king. These were, that they should receive him as their superior, accept the Norwegian laws, and pay an annual poll-tax of money equal in value to ten ells of cloth, which even at that period seems to have been the circulating medium of the island. He added both threats and promises; but the Icelanders, disregarding his persuasions, chose rather, as they said, to continue his friends with independence than to lose their liberty and become his slaves. The monarch, when he heard the result of his mission, began to treat the young nobles whom he had in confinement with a harshness not very consistent with his affected piety. But his unjust designs were soon after brought to a close by the victories of Canute the Great, which deprived him of his throne and life.*

It is generally believed that Harold Hardrade, who soon after the death of Canute obtained possession of the Norwegian throne, made some attempts on the independence of the Icelandic republic. But these, though conducted with more secrecy, were equally unsuccessful with those of his half-brother St Olaf, and the internal dissensions that succeeded in the northern realms prevented for some time any endeavours of the Norwegian kings against the liberties of their weaker neighbour.

Christianity had been established in Iceland about half a century before any one was appointed bishop. The first advanced to that dignity was Isleif, the son of Gissur, who had been so instrumental in introducing this religion into the island; and having been sent by his father to study at Erfurt in Germany, he was, on his return, chosen by his countrymen to fill this office. Wishing to procure the sanction of the head of his church, he visited Rome in 1056, where he obtained a letter from the Pope requesting the Archbishop of Bre-

* Crymogea, lib. iii. p. 196-199. Torf. Hist. Nor. tom. iii. pp. 122-124, 132, 133.

men to consecrate him. On his journey he is reported to have visited the Emperor Henry and his son Conrad, whom he highly gratified by the present of a Greenland bear; and going home next year, he fixed his residence at Skalholt, where he built a cathedral, to which he annexed a school. It is a curious circumstance that the bishop was married and was succeeded in his office by his son, named Gissur, who, having also studied abroad, and returning to Iceland in 1081 soon after his father's death, was compelled by the people to accept the vacant mitre. He was distinguished for his gifts both of body and mind; and hence Harold of Norway remarked that he was equally well qualified for three things, either as a king to rule a nation, as a general to command an army, or as a bishop to guide the church. His influence at home was so great that in 1097 he persuaded the Althing to consent to the payment of tithes without one dissentient voice. Like his predecessor he also was married, and continued bishop of the whole island till 1106, when the see of Holum was founded in the northern provinces. The first prelate in the latter district was Ion Oegmund, who built a large church, and also endowed a school, in which it would appear that the Latin language was taught. A story is still preserved of the anger of the worthy founder when he accidentally discovered one of the scholars engaged in reading the elegant but seducing strains of Ovid.*

The Icelandic clergy, as we have seen above, usually repaired to some foreign university to complete their education; and in this they only followed the common custom of the country, according to which no man was at all esteemed till he had seen the manners of other lands. As courtiers, soldiers, or merchants, most of them had at some time or other left their native shores, and the old northern proverb was long accounted true in Ice-

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* Epistolæ et Amores Ovidii. Crymogea, lib. i. p. 105-108. Scrip. Rer. Dan. tom. iii. pp. 48, 49.

land, "That the child brought up at home is simple."* The pilgrimages to Jerusalem, that at this time began to prevail in the north, had also a great influence in increasing the practice now mentioned. But this intercourse with foreign nations did not produce conformity to them in their customs; and the ministers of religion continued to marry like other citizens till the time of Thorlak, who succeeded to the see of Skalholt in 1178. This prelate, who had studied at Paris, on his return to his native land condemned the marriage of the clergy. His prohibition, however, had so little effect, that his immediate successor, Paul Jonas, who traced his descent from the Norwegian kings, disobeyed it, and the priesthood seem to have maintained this right so long as the island preserved its freedom. This is a curious proof of the enlightenment and independence of the Icelanders even in religion, and of the little attention paid by the Vatican court to those distant provinces of its spiritual empire.†

With the exception of some improvements in the laws, particularly those introduced in 1094 and 1118 by Bergthor, the chief magistrate, who first reduced them to a written form, afterwards known under the name of the Gragas code, few events of general interest occur. The contests and adventures of individual chiefs, related with great minuteness in the sagas, scarcely belong to the history of the island, and even the scene of the most interesting of these occurrences is placed in foreign lands. Hence, until we approach the period when the connexion of the private exploits of the leaders with the national fortunes impart to them a greater importance, their annals contain little more than the names and date of election of the principal magistrates. We have already given a list of those who held this office before the sup-

* Heimskr er heimalit barn. The old word heimskr, simpleton or fool, seems to be derived from heima, home, in consequence of the same idea.

† Crymogea, lib. i. p. 108-110.

pression of idolatry, and shall now add those who followed them during the independence of the island :—

1002 Gunnar.
1004 Skaptar.
1028 Stein.
1032 Arnor.
1054 Geller.
1063 Gunnar.
1065 Kolbein.
1067 Sighvat.
1071 Geller, again.
1075 Gunnar, again.
1084 Markus.
1093 Bergthor.
1097 Markus, again.
1099 Gunnar.
1108 Ulfhedinn.
1116 Bergthor, again.
1122 Gudmund.
1135 Rafner.
1139 Finno.
1156 Snorro.
1171 Styrker.
1181 Gissur.
1201 Haller.
1215 Snorro Sturleson.
1219 Teitr.
1222 Snorro, again.
1232 Strymer.
1236 Teitr, again.
1248 Olaf.
1251 SturleSieghvatson.
1252 Olaf, again.
1253 Teitr Einarson.
1259 Ketil, to 1262.*

What some might regard as the greatest theoretical excellency of the Icelandic republic, became in practice its principal defect, and in a great measure the cause of its ultimate destruction. The restraints imposed on the personal liberty and individual development of the people, were weak and powerless when opposed to the fierce ungovernable passions of a rude and warlike race. The proceedings of a court of justice seemed a slow and dilatory mode of redress to angry chiefs with weapons in their hands. Revenge was therefore gratified in spite of the laws; and when the offender was powerful, or supported by numerous friends, the magistrate was unable either to exact obedience or to impose punishment. This weak point of the constitution did not immediately appear on its first formation; for as the inhabitants of the island were then nearly on an equality in wealth and power, none had any reason to assume an undue superiority over his neighbour. The common hatred of Norwegian slavery, the fear of the king's authority, with the bonds of mutual relationship, and reverence for the law, prevented all contentions dangerous to the unity of the state. Quarrels were indeed even then of common occurrence, but the numbers of those engaged in them were too small to disturb the public peace. The interposition of friends, or the command of the magistrate, generally produced some agreement, according to

* Some difference exists in the lists given in the annals, both in regard to names and dates. Compare Crymogea, pp. 81, 82; Langebek's Script. Rer. Dan. tom. iii. p. 138.

which the offending party consented to pay a fine, or was banished for a term of years from the island,—a light punishment to men who found a home on every sea and plunder on every shore. But in the eleventh century circumstances began to alter; the nation with their old religion lost also their reverence for the laws that were associated with it, whilst they had not received the new faith in such a manner as to supply the place of the former. The fiery spirits of the nation no longer found an outlet in the viking expeditions, which had now ceased; the power of some of the families began to preponderate, converting the aristocracy into an oligarchy; and the custom was established of travelling to the Things with large companies of armed men. In the beginning of this period we read of Gudmund Rike (the mighty or powerful) proceeding through his district every spring with thirty followers, to administer justice to the inhabitants; but even this small number created a famine when he remained long in one place, and he was at last obliged to content himself with six. Alliances of the great families only increased this evil, and in the commencement of the twelfth century, we find Halflide Marson coming to court attended by 1200 adherents, whilst his opponent, Thorgils Oddeson, appeared with 700 to support his pretensions. Against such powerful chieftains private individuals could no longer contend, and the feeble voice of law and justice was too often unheard amidst the clash of arms.*

When hostile chieftains met in the public assemblies, protected and encouraged by such numerous bands of armed dependents, it would have been surprising if they had not come into collision with each other, and settled their disputes at the point of the sword. Such events frequently occurred, as, for example, in 1163, when Halldor, a son of the powerful Snorro Godi, was slain

* Kristni Saga, p. 124. The Sturlunga Saga gives Halflide only 700, and Thorgils somewhat fewer. Such were the armies of Iceland! Vid. Müller, Island. Hist. p. 84.

in the Althing, and the tribunal of justice converted into a field of battle. From that time these intestine feuds greatly increased in violence and frequency, penetrating to every corner of the land. Even the snows of the lonely mountains were stained with the blood of the slain; a conflict having taken place on the Ryda Jökul in 1167, and the annals of the succeeding years mention many others. About the beginning of the twelfth century, however, all the contests in the land are conjoined with those of the three sons of Sturle, the historian Snorro, Thord, and Sieghvat, the most powerful chiefs of their time. This period has been rightly named the Sturlunga age, and closes the history of the Icelandic republic amid scenes of treachery and blood. An account of it still remains, written by Sturle Thordson, one of the combatants, with considerable elegance, great care, and remarkable impartiality, though inferior in most points to the Heimskringla, the celebrated work of his illustrious uncle. But the spirit of this unnatural warfare, ever present in all the deeds of dark revenge and daring cruelty it excited, deprives the story of much of its interest. The events also are often quite unconnected with each other, arising merely in some personal feeling of the leaders; we shall therefore chiefly confine ourselves to those relating to the life of Snorro, who, if in some degree guilty of his country's ruin, has in some measure repaid the injury by the lustre which his works cast upon her name.*

As already mentioned, the office of godar or supreme magistrate and judge of the provinces, was hereditary in certain families, and now almost regarded as private property. By marriage and other means, several of these appointments, together with immense wealth, had been united in the person of Sturle Thordson, who transmitted them to his sons. Had these been agreed among themselves, they might easily have reduced the

* Script. Rer. Dan. tom. iii. pp. 61, 62, &c. Müller, Island. Hist. p. 85.

island to subjection, and given to it a native sovereign; but far from accomplishing this, their mutual jealousy, ambition, covetousness, and revenge involved themselves and their country in one common ruin. Snorro, the most distinguished of the three brothers, was born in 1173, in Dale Syssel, but his father dying when he was only five years old, he was brought up in South Iceland by Jon Loptson, a grandson of the famous Sæmund Frode, the author of the Older or Poetic Edda. Here the young skald had an opportunity of accumulating those treasures of historical and mythic lore which his works display, and probably acquired that literary taste which led to their composition. At the age of twenty-two he married the daughter of Bersa the Rich, whose possessions, added to his own, rendered him one of the most powerful of his contemporaries, being able to raise from his own estates eight or nine hundred men. To preserve himself from the attacks of other clans with whom he was at enmity, he fortified his favourite residence of Reikholt, and constructed the bath which still remains a monument of his skill and magnificence. In 1213 he was chosen lagmann or supreme magistrate of the island, and about the same time engaged in those foreign connexions which afterwards proved so prejudicial to his peace and life.

The Icelanders, though independent, had continued to pay a certain deference and respect to the Norwegian sovereigns, and as a nation often asked their advice in regard to public affairs. Private individuals were still more closely connected with them, as their court was the great field where they might display their talents, and their service the surest channel to wealth and fame. Many of the Icelandic nobles were thus induced to visit those monarchs, who having never laid aside Olaf's design of subjugating their island, endeavoured to conciliate their affections by presents and honorary titles. The skalds were always the most welcome guests, and it was in this character that Snorro first appeared in Norway. He had composed an ode in praise of Hakon

Galin, a powerful and affluent jarl, who sent him in return a rich suit of armour, with an invitation to visit him. The bard travelled thither in 1218, and was received with high favour by Jarl Skule and the young king Hakon, but found his first friend dead and his widow married to Askel, the lagmann of West Gothland. He visited her there, and remained nearly a year studying the sagas and antiquities of the country, and collecting materials for the history of the Swedish kings inserted in the Heimskringla. Returning to Norway, he found Skule preparing an expedition against Iceland to avenge the death of some merchants who had been assassinated whilst trading there under his protection. This design, if it had been carried into execution, would probably have united the natives in determined hostility to the Norwegians, and destroyed all hopes of reducing the country otherwise than by force. The king foreseeing this, remonstrated with the Jarl, and the expedition was given up, though, with the same insidious purpose, it was pretended that this forbearance was exercised only at the solicitation of Snorro, who promised to procure justice to the injured parties. The poet is reported, on this occasion, to have advised his host rather to gain the friendship of the Icelandic chiefs, especially of his own two brothers, and through them to rule the rest of the nation. His majesty, it is also said, gave the Icelander the title of his liegeman or vassal, and in 1220 he returned home, ostensibly to protect the Norwegian traders, but, there is reason to believe, with secret instructions to subject the country to the royal authority.

Snorro, the year after his return, sent one of his sons to the jarl as a hostage, at the same time informing him that nothing had been effected towards reducing the country, in regard to which he probably was never serious, merely intending by his promises to secure peace and commerce with Norway. His presence, however, could not alleviate the dissensions which now rent his native land, in which, notwithstanding their profession,

the ministers of religion bore a distinguished part. His brother, Sieghvat, had become involved in a quarrel with the Bishop of Holum, whose dependents had killed one of his sons. Sturle, another of them, incensed at his relative's death, attacked the bishop, turned him out of his see, and carrying him first to Grimsœ, afterwards banished him to Norway. The prelate, on arriving there, complained to the Archbishop of Bergen, who summoned his opponent to answer for his conduct. Sturle went thither, was condemned, and sent to Rome for penance and absolution, which he obtained after being led naked to the different churches, and scourged so as to draw tears from the Roman ladies. On his return to Norway he had a secret interview with Hakon, who pretending displeasure at the constant tumults and murders in Iceland, asked if it would be difficult to reduce it to subjection. He replied that, to a brave man, it would not; whereupon the king requested him to undertake it: to which he consented, on condition, that he himself should be made vicegerent, and that art and wisdom should be employed, rather than force and bloodshed.

Hakon had now two agents in Iceland, but these were by no means disposed to co-operate with each other, and it is even doubtful whether either of them was sincere in his promises. Sturle Sieghvatson, on his return in 1235, found that Uraekia, a son of Snorro, had in his absence plundered his provinces and seized on his property. He collected his adherents, proceeded against the father, who, unwilling to contend with a relation, asked his brother Thord to mediate between them, and on this failing, he left Reikholt to his enemy, and retired to Bessastadir. Sturle soon after defeated several other of his opponents, and having by a pretended reconciliation got hold of Uraekia, put out one of his eyes and otherwise maimed him. Shortly after, the latter sailed to Norway, where in 1237 he was followed by his father and many powerful chiefs.

Snorro, on his arrival, attached himself to his old

friend the jarl, who then held his court at Trondheim, and was almost openly aspiring to the throne. The Icelandic skald employed his poetic powers to favour his patron's ambitious designs, composing odes in his praise, and vindicating his right to the crown. Intelligence from Iceland, where the preceding winter Kolbein and Gissur Thorwaldson had defeated the Sturlunga party, and slain Sturle, his father Sieghvat, and three brothers, created in Snorro a wish to return home, but he was forbidden by the king, who declared him an outlaw. The jarl, however, furnished him with the means of evading this prohibition, and he sailed for his native land. But the enmity of Hakon pursued him thither; secret orders being sent to Gissur, who, though Snorro's son-in-law, was now one of his most implacable foes and head of a party devoted to the ambitious monarch, to seize his person and send him prisoner to Norway, on a charge of high treason, or, if this could not be effected, to put him to death. Gissur's passion or interest prompted him to adopt the latter alternative, and assembling a sufficient force, surprised him in Reikholt on the 22d September 1241, and deprived him of life.*

Snorro, who thus perished by the hand of an assassin, is acknowledged to have been one of the greatest and most learned of the Icelanders. His countrymen love to compare him with the most celebrated of the Roman orators, to whom both in character and fortune he bore a striking resemblance. Both were called to the highest offices in their native land by the voice of their admiring countrymen,—both amidst the cares and distractions of political life soothed their labours by literature, and won its brightest honours from their less busy contemporaries,—both lived at a time when the bulwarks of freedom were crumbling into fragments around them,—and both, taking an active share in the unnatural conflict, fell victims to the success of their enemies. Like

* Torf. Hist. Nor. tom. iv. pp. 146, 201-203, 211, 306. Script. Rer. Dan. tom. iii. p. 82.

Cicero, too, Snorro was distinguished for his powerful, fervid eloquence, and by his rank, wealth, and talents, was entitled to the highest places in the state. But his character was stained by avarice and ambition, and he is accused of having often failed to perform boldly what he had prudently contrived. He has been charged with promoting the designs of the Norwegian monarch against the independence of his native land, but may be excused, even supposing him to have countenanced this project, when we consider that it was to avert the evils which a hostile expedition, probably ending in complete subjugation, would certainly have produced. His subsequent conduct proves that he had no desire to see the object accomplished; and the disgrace of ruining their country finally devolved on his opponents.

As the literary labours of Snorro will come under our notice when treating of those of his contemporaries, we shall at present proceed with the history of the political changes in the state. Gissur, after the murder of his father-in-law, took possession of all his property, and, having now the greatest power in the island, banished his son Urækia to Norway. The chief place among the Sturlunga party immediately devolved on Thord Kakal, who, though he partially avenged the death of his friends, had not power either to subdue his enemies or to procure an agreement with them. After six years of petty warfare we find him and the leaders of the opposite faction in Norway, where the papal legate had arrived to crown the sovereign. To him both applied for his influence relating to the affairs of the island; but Thord was the favourite, and the king and cardinal resolved on sending him to his native land to bring it under the authority of the mother-country, it being unjust, according to the latter, that Iceland alone of all Christian nations should refuse to obey a monarch. The reasoning of the prelate prevailed, though the fact referred to was false, for there were many republics even in Italy; and accordingly Thord with Bishop Henry of Holum were sent to procure the submission of the islanders.

The two confederates did not long continue allied, and we find the bishop once more in Norway associated with Gissur his former enemy, and endeavouring to persuade the king to transfer his authority to his new friend. In 1253 Henry is again at court charging Gissur with faithlessness,—an accusation probably well founded, as the Icelandic chiefs seem to have been constant in nothing save the gratifying of their ambition and revenge by servility to Hakon and treachery to their country. In the autumn of this year an event happened which, as showing the spirit in which these feuds were conducted, deserves to be more fully related.

Gissur and the chiefs of the other party proposed to end their disputes by the marriage of his son to the daughter of one of their leaders. The affair was arranged and the nuptials celebrated at Flugumyra, Gissur's residence, with great hospitality and rude magnificence. He appears to have been sincere in his intentions, but not so his foes, who wished to lull his suspicions only that they might strike the blow more surely. Several of the guests in retiring warned him in the dark and figurative language of the land to beware of the coming danger; but their words were unheeded, and the family retired to rest. Three nights after, forty armed men surrounded the house, and killing one of the sentinels at the door, were forcing their way into the interior when they were repelled by the master, whom the tumult had awakened. Afraid lest the neighbours should come to his assistance if they remained long, the conspirators set fire to the house, and his wife who, trusting to the respect due to her sex, tried to escape, was thrown back into the flames. Gissur meanwhile had taken refuge in a detached part of the dwelling, which from the mode of construction had escaped the fire, and heard his enemies consulting about his death. In the room there was a large vessel full of sour milk, the usual beverage of the country, in which he hid himself, and his enemies after searching the place, and even wounding him several times with their spears, departed

without perceiving him, persuaded that he had perished in the ruins of his home. Thirty-five persons, including his wife and three sons, fell victims to the fire or sword, but the individual principally aimed at escaped to avenge their death. In the following winter he slew seven of the leaders, and others of them received the reward of their cruelty next summer in the island of Grimsœ, whither they had been followed by their implacable foe.*

Deeds like these were but too well calculated to alienate the minds of the people from their rulers, and to induce them to look for that security and peace under a foreign prince which were denied them by their own institutions. Time with its secret mutations had converted the Icelandic aristocracy into the worst of oligarchies; and the powerful chiefs, not content with governing their own provinces, were stirred up by their insatiable ambition to usurp those of their neighbours. The authority of the laws was utterly despised, and all causes decided by violence and arms, whilst sedition, rapine, and slaughter every where prevailed. In the more ancient feuds some seasons of the year brought peace, and by mutual consent the property and flocks of the combatants were spared, but now all this was reversed; summer and winter, night and day, by sea and land, the battle was carried on, and the design of the combatants being only to injure their opponents, they plundered or destroyed whole provinces, and in their deep revenge spared neither age nor sex. Whilst the feuds of the chieftains thus seemed interminable, their constant reference to the King of Norway, and their desire to strengthen themselves by his support, taught the people where to look for protection,—a feeling heightened by the dependence of the clergy on the see of Trondheim. Hakon knew well how to employ these incidents to favour an event now almost a necessary consequence of the course of things.

* Torf. Hist. Nor. tom. iv. pp. 270, 271. 322-329.

Relying upon these circumstances, and more especially on the disposition of the people, Hakon could now treat for the surrender of the island in an open manner. For this purpose he sent Bishop Sigvard and a Norwegian nobleman of the same name thither in 1254, and Ivar Egilson the following year, who persuaded the inhabitants of the north to pay tribute to him. But they did not long continue in this resolution, and Gissur, who had returned to Norway, was again in 1259 sent to Iceland. But neither did he effect much; and, accordingly, finding himself hated by his countrymen, suspected by the king, and weary of life, he retired to a monastery, where he concluded his days. Harald, or Hallvard Gulskor, at last succeeded in inducing the whole island in 1261 to swear allegiance to the Norwegian monarch and consent to pay tribute, with the exception of the eastern quarter, which also submitted in three years. In thus accepting of a sovereign the Icelanders did not resign their freedom, a regular contract being entered into between them, securing their ancient rights and laws, free commerce with Norway, and government by a viceroy; it being also stipulated that on the infringement of any of these conditions they should be no longer bound by their oath.*

The manners and customs of the Icelanders during this period varied little from those of the preceding age, except in the abolition of some heathen customs too much opposed to the spirit of Christianity to survive its reception. Though the change thus produced was highly beneficial, yet the religion of peace had little effect in restraining the wild and lawless spirits of the northern chiefs; and the bishops, whose influence might have done much, were too deeply involved in the fac-

* The history of this surrender will be found in Torfæus' History of Norway (tom. iv. lib. 4) under the various years of Hakon's reign, and a very full account of the transactions following the death of Snorro in the fifth book (p. 305-336), and also in the Crymogea, p. 199-208. For the terms of the contract see Torfæus, p. 334, and Crymogea, p. 107.

tions of the time to amend the nation either by precept or example. The most curious feature in the social development of this period of independence, is the composition of those poetic and historical works, which even yet impart a lustre to the faded glories of the land, and from the light which they cast on the history of the neighbouring kingdoms, possess a universal interest. Why the natives of that remote and barren island should, at a time when midnight darkness covered all other European lands, turn their attention to literature, and produce works of such real excellence, is a question worthy of attentive consideration. Though several of these were produced prior to the introduction of Christianity, yet, as they were not committed to writing, and many of the most important not composed till after this event, we have hitherto deferred noticing them.

The first colonists of this island were men of noble birth, famed not only for their own deeds, but for those of their ancestors. To this much importance was attached in all the Scandinavian nations, and more particularly in Iceland, where, as few opportunities of signalizing their personal prowess arose, this proof of courage and a manly soul was proportionately more valued. In Norway the name of the warlike race was known to all the inhabitants of the same Ting or province; and the green mound where the ashes of the mighty reposed, the ancient patrimonial possession (odelshof), the places famous by their deeds, preserved the memory of the heroes, and ensured the renown of their descendants. But of these only the songs of the skalds could follow them to Iceland, for they could not "bid the bones of their fathers arise and go with them to a strange land." But their removal from these more lasting memorials only made them cling the more closely to those that remained, and more anxious for their preservation, whilst the distance of the scene, the melancholy attached to home, when left for ever, impressed them more deeply on their hearts. In the altered circumstances of the nation we may find another reason: men accustomed

to war, to bloodshed, and to danger, sailing from shore to shore in quest of plunder or of glory, now fed their flocks in peace, or allotted to their servants their daily labour. Like persons rescued from a stormy ocean, they would oft recall their bygone days, and seek in the stirring vicissitudes of the past a relief from the vacuity of the present. Besides, their own acts were intimately associated with those of their fathers, whose feuds they had inherited, whose death they had avenged, and from whose friends they had sought and found support. In this way a perfect image of the past would spring up and be preserved in the hearts and memories of the Icelanders; whilst in Norway, recent events obliterated the remembrance of the old, and the bloody wars of the Birkebeinar almost annihilated the ancient families with all their traditions.

We are not here concerned with the literature of the other allied nations; but it is important to remark that many skalds flourished in Harald's court at the time when Iceland was colonized, and that Jarl Einar then sang in the Orkney Islands. Verses written by these authors still remain, and some beautiful poems of Eyvind Skaldaspilder, the most famed of the northern bards, are yet preserved. But Christianity took deeper root in these lands, and its more violent contest with the old superstition imbittered the minds of the priests against all remnants of the ancient mythology, which was inseparably interwoven with the skaldic poems. The same reasons of hostility did not exist in the new country, where the struggle was less virulent and protracted. To this favourable circumstance, climate and the mode of life of the inhabitants, which left them many leisure hours, added their influence. The hay harvest was soon collected, the fisheries finished, and the cattle required but little care. The feuds occupied only a short time, but compelled the leaders to keep a number of followers around them; whilst the social character of the people made it the custom for all the inhabitants of a farm, however large, to assemble in one room. To

these private were added many public meetings, where a whole district gathered together either for amusement at ball or the hestething, where horses were provoked to fight together; or, for civil business at the different inferior courts, and especially at the Althing. In all these meetings the relating of sagas became a common amusement, and the question was frequently asked if there were any wise man present who could amuse them with new histories. Where this talent is much practised, and highly appreciated, it is sure to develop itself, and many such sagamen (sagnamadr) are named in these narratives. The political character of the institutions gave to these relations an importance they would not otherwise have acquired, arising from the desire of fame excited in the minds of all the nation, to which this was a sure path. But the most powerful cause was found in the rivalry of the chiefs, whose authority depended on the number of their adherents, and this again on personal character and influence in the courts. No one could defend his cause with success against a more powerful opponent, and hence, private individuals were glad, as in ancient Rome, to become the clients of some chieftain. All the grandees therefore were anxious to acquire a name which gained them at once glory and an increase of power, and this it was the skald's office to dispense. In these disputes also, the character of the leader, whether he was warlike and enterprising, or well liked and had numerous relations, was a question of importance, not merely to those who espoused his side, but even to his enemies. Hence the importance of these sagas, and at the same time their peculiar character. They are all historical, and we may even say in some measure political, displaying close observation of the conduct, character, personal appearance, and dress of the chieftains,—things of moment in a land where it was of consequence to recognise at a distance one's friends or foes.

When the first settlers arrived in Iceland, we cannot doubt that they brought with them many songs derived

from their Norwegian ancestors. Probably the most ancient of these were the mythic poems concerning Odin and the Ais, after which we may place those of the Volsung and Giukung. But this character was soon exchanged for the historical; and the long continuance of the heroic age in Norway offered rich materials for the skald. He had not, like the Homeric poets of Lesser Asia, to go back into a former age for a theme worthy of his lyre. Actions were performed every day fitted to inspire his muse, and these he delighted to sing; but it is obvious that this proximity to the period whence his subject was taken must have had a great influence on the manner in which it was treated. Fettered by the present, the skald seems never to have been moved by a law of beauty, deeply yet darkly felt, which led his Grecian brethren to transform some historic incident into one harmonious whole. Brage, the northern muse, was more allied to the lyric than to the epic. When some stirring adventure caught the poet's fancy, his creative spirit unfolded itself in lofty tones; but this was only for a moment, when, again entangled in the course of events, it was revealed only in individual expressions, not in the general plan. But what the longer sagas thus lost in poetic spirit and unity, was more than compensated by their higher interest and utility as authentic records of real events.

Some may perhaps doubt whether the northern language at that early period was so much refined as to be fitted for compositions on such subjects; but that it was so may be shown on indubitable grounds, even although we should reject the verses ascribed in the sagas to their ancient heroes. Many songs of the skalds in Harald Haarfager's time still survive, the style of which differs but little from that used in the eleventh century; the change in manners and ideas during these two ages having been very slow and inconsiderable. Between this poetry, however, and the oldest prose there exists such a difference, not merely in the metrical form and artificial arrangement, but also in the choice of

words, as proves that this form of composition was then very old in the north. This perfection of language was only what was to be expected from the rank assigned to eloquence in the free constitutions of Scandinavia, where the wise and powerful tongue gained equal honour with the bold and skilful hand.

These sagas do not go far back; those of the colonists seldom beyond their father or grandfather. Remarkable events of such recent periods were easily remembered, especially when embalmed in the living strain of a favourite bard; and though only preserved by memory, the circumstances in which they were recited were often sufficient to ensure their transmission to future generations. The hero's court, whose own exploits, or those of his immediate ancestor, formed the subject of the poem, was frequently the place where it was sung. At other times, it was on the battle-field, amidst the assembled warriors, as at Stikklestad (A. D. 1030), where St Olaf, collecting the skalds into the schildburg, where the bravest of his warriors fought around the king, said, "Be here and see what is done; trust not to others when you sing our deeds." On this event the bards thought fit to compose a memorial-song, each improvising a strophe, which was immediately committed to memory by the men. On the eve of the same battle, Thormod Kolbrun, at Olaf's request, sung the Biarkelied on the death of Rolf Krake, part of which still remains. The whole army rejoiced at the well-known strain, calling it the whetstone of heroes, and the monarch rewarded the skald with a gold ring.*

Neither were these verses trusted entirely to memory; for even before Christianity had introduced the Roman letters, it was the custom to engrave them in Runic characters on wooden staves.† Thus Halmund, when

* Heimskringla Saga af Olafi Hinom Helga, kap. 218, 220.

† The use of this mode of writing was very ancient in the north, and probably brought with the Æsir from their Asiatic home. The number of Runic inscriptions (above 1400) scattered through Scandinavia and Iceland, refute the theory of their origin from

mortally wounded, says to his daughter, "Listen faithfully whilst I relate my actions, and engrave this song upon a staff." In the same manner, when Egill Scallagrimson, grieved for his son's death, wishes to commit suicide, his daughter, to divert him from this purpose, says, "I wish, father, we had lived till you had composed a funeral-song on our Bodvar, which I might cut in runes."*

In this manner did the taste for such relations spring up in the breasts of the Icelandic Skalds. Had their sagas been confined to the history of their own country, however interesting as a curious fact in the progress of civilisation, they would probably never have acquired their present fame. But the events of their own land were too limited to exhaust their powers, and their constant intercourse with the surrounding nations introduced them to a wider field, which they were not slow to cultivate. Notwithstanding the remote situation of the island, they had many opportunities of acquiring the requisite knowledge; for Norwegian, and probably British merchants, visited them every summer, and often remained throughout the winter.† But in their

the Roman letters at a recent date, to which they have less resemblance than to the ancient Greek, Etrurian, and Celtiberian alphabets. Tacitus, however, affirms that the Germans, in his days, were ignorant of the use of letters, Tac. Ger. cap. 19. The story in the Sturlunga Saga (3 Thattr, kap. 7) of Ingemund, an Icelandic priest, who in 1185 perished on the coast of Greenland with six others, leaving an account of his misfortune in runes, found with their bodies fourteen years after, shows that they were then the most common mode of writing, and the most likely to be understood. They were chiefly employed in inscriptions on public monuments, tombs, and in letters which consisted of a wooden staff (*runakefle*). They at last fell into bad repute from being employed in magic rites, and were discouraged by the clergy. Müller, Island. Hist. p. 130-134. Olafsen's Reise, th. i. pp. 248, 249.

* Grettis Saga, cap. 65. Egil Saga, p. 605. Müller, Island. Hist. p. 20.

† The imports were meal, wood, linen, fine cloth, and tapestry; the exports, silver, skins, wadmal, and other coarse cloths, with dried fish. The merchant usually resided with the chief of the district, and, in return for his winter's lodgings, gave him a

travels to foreign lands, whether for commerce or as soldiers and poets, they had still greater advantages. The skalds, like the troubadours, were nobles and warriors, and were received by the kings, to whom they were often related, not like wandering minstrels without a name or home, but as friends and councillors. They had the seat of honour in the court, were consulted by the sovereign on all difficult occasions, and rewarded with titles or valuable presents. Most of the 230 skalds who distinguished themselves before 1957 were Icelanders; the circumstances of that nation being more favourable to their peculiar vocation, whilst the princes were also better pleased with praise from a foreign bard than from one of their own subjects. The hope of fame or profit thus led these islanders through every land, from the shores of the icy ocean to the Mediterranean, and from Britain to Constantinople and the Holy Land. As they never failed to return to their native country, much historical matter was in this way collected there, which, according to the habits of the people, soon assumed the form of a saga.*

In this manner, an immense number of these productions accumulated in Iceland. Though endowed with almost incredible powers of memory, the sagamen must have sunk under the burden, and many of these works would have been lost, had not some other means been contrived for their preservation. The blind skald Stuf is said to have sung on one evening to Harald Hardrade no fewer than sixty songs, and to have known four times as many longer poems. The length of some of these may be conjectured from what is related of Thorstein, who recited to the same Harald an account of his expedition to Sicily, which he had learnt from Halldor Snorroson, one of the king's followers, and which continued

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present of a piece of English tapestry, or other costly goods. Müller, Island. Hist. pp. 46, 47, with the authorities from the sagas there quoted.

* There is a very curious treatise on the travels of the Icelanders, by Jon Erichsen, De Peregrinationibus Islandorum.

thirteen nights.* No sooner, therefore, were the Roman characters introduced with the Christian religion, than they were gladly employed to relieve the mind from this mass of traditional lore; and when the poems were once committed to writing, many who would have hesitated to burden their memories with them, were glad to procure copies. At what time this happened is not well ascertained; but as schools were instituted soon after the conversion of the island, both at Skalholt and Holum, it was probably about the same period. Even in the twelfth century books were composed, and the priests at least possessed libraries; whilst the Sturlunga Saga says, that most of the events that took place in Iceland were recorded before the death of Bishop Brand in 1201. The compilation of the Landnamabok, in which are found the names of about 3000 persons and 1400 places, proves the early existence of some written documents, no power of recollection being able to retain such a number of detached particulars.

We are apt to regard these sagas as confined to the history of Iceland; but this is an incorrect view, as they embrace in their wide circle the whole north, its language and customs, its annals and religion. One class comprehends the events of Scandinavia before the peopling of that island, and, as being the most interesting, they have engaged much of the attention of foreign authors. These, passing through a longer channel of tradition, are less to be depended on than the more recent, and are impressed with a deeper mythic character; though such as respect Norway are more complete than those which regard Sweden and Denmark. Greater confidence may be placed in such as treat of the events which came to pass after Iceland was inhabited; and the religion, manners, laws, constitution, and language of the north, being then almost uniform, we are enabled from them to form a true picture of this heathen period. With the history of the Icelanders, those of the other northern colo-

* Torf Hist. Nor. tom. iii. p. 333.

nies are closely connected. For example, that of the Orkney Islands is related in the Orkneyinga Saga, published by Johnson, of the Faroe Islands in that of Sigmund Bresteson, and of Greenland in the saga of Erik Raude, and others embodied in Snorro's great work. Regarding the continental nations, the Heimskringla of the same author has obscured the fame and caused the loss of many documents existing in his time, and employed by him in its composition. Some others however still remain, which prove by comparison how faithfully he has performed his task, and with how much truth and elegance he has given us the story of three hundred years. In this work we must regard Snorro as more than a mere compiler. He has indeed followed old traditions, as all who compose the history of the past must do; but he has presented them as one consistent whole, correcting, adding, and omitting, according to the information acquired in his other researches. His style, simple and unadorned, often interrupted by quotations from the skalds, expresses in a vivid manner those thoughts and feelings to which his native tongue could alone give utterance. To this work we are indebted for our chief knowledge of those Norman chiefs, whose names made the kings of Europe tremble in their palaces, and whose descendants now sit on the mightiest of their thrones.*

* The Heimskringla (that is, the orb of the world, so named from its first words) was originally published in a Danish translation, by P. Clausen, in 1639. The original Icelandic, with a Latin translation by Peringskiold, appeared at Stockholm, in two vols folio, in 1697. But this edition is founded on corrupt manuscripts. A more correct copy is that of Schoening, in Icelandic, Latin, and Danish, in three folio volumes. There are other smaller editions of the whole or part. His descendant, Bishop Finn Johnson, wrote the first biographical notice of him; a longer one, by Finn Magnusen, will be found in the nineteenth volume of the Memoirs of the Scandinavian Literary Society (Copen. 1823). See Depping, Biographie Universelle, tom. xlii. p. 502-505. Snorro's other great work, the Edda, is translated in the second volume of Mallet's Northern Antiquities, and a very complete analysis of it will be found in another part of the Edinburgh Cabinet Library (Scandinavia, vol. i. p. 85, &c.)

Older than the writings of Snorro, though of less general importance, are those of Are Frode. His short treatise on the history of his native land, compiled after 1122, contains a comprehensive and well-arranged outline of the principal events before his time. He was the first of the Icelandic authors who assigned fixed dates to events, and his narrative far surpasses those of his monkish contemporaries on the continent in sound sense and patriotic feeling. He composed a larger work, of which only a few quotations, principally on genealogical and chronological questions, remain. It appears to have been a dry collection of the most remarkable occurrences which took place subsequently to the colonization of Iceland, in that kingdom, and in Norway, England, and Denmark, and was employed by Snorro in the composition of his principal work. Another production, of which we know little more than the name, was a history of the Norwegian kings from Harald Haarfager to Magnus the Good, by Sæmund Frode, which is seldomer quoted than Are's, and is thought to have been mostly chronological. Sæmund is also the reputed author of the Older or Poetic Edda, though his title to this, as also to the Odda Annals, has been disputed. Other historical works of this period are well known, but most of them having assumed the form of annals, were either incorporated with later treatises or have altogether perished. The cause of this peculiar method may be found in the detached and unconnected nature of the events of northern history, consisting merely of individual facts united only by the slender relation of time. It was reserved for Snorro to combine the living spirit of the northern Saga with the widely connected views of foreign literature, and thus to produce a classical work which easily eclipsed all former attempts.

The success of this great author induced many others to follow in the same path, the most distinguished of whom was Sturle Thordson, his brother's son. He wrote, in 1284, the history of the civil contentions of the island during the twelfth and thirteenth centuries which

led to its final subjection to the Norwegian kings. Though his friends were deeply engaged in the earlier part of these transactions, and himself in the more recent, yet he is generally allowed to have been impartial in his account of those melancholy occurrences. His work is the most extensive that remains to us of all that were composed during this period of Icelandic history. In those wars the noblest of her sons perished; and with freedom the spirit that animated their literature fled for many ages. But this belongs rather to the next historical epoch, before entering on which we must notice some of the other writings of this age.*

Probably the most curious of the works of this period which have been preserved is the Landnamabok, or a narrative of the origin of the Icelandic nation. In this treatise we find an account of the first discovery of the island, and a list of the colonists, with their relations and descendants. Such a complete genealogical record of a whole nation is perhaps nowhere else to be found, and is singularly characteristic of the people, their family pride, and love of minute information respecting their ancestors. It forms the surest authority for the early history of the island, and, amidst many uninteresting details, frequently gives us curious glimpses of the state of society. From the book itself we learn that it was not the work of one author, but of many distinguished individuals in succession. The first of these was Are Frode, or the wise, a priest, born in 1068, some of whose

* An edition of the Sturlunga Saga with notes, in four volumes quarto, has been published by the Icelandic Literary Society at Copenhagen (1817-1820), accompanied with an introduction and a biographical account of Bishop Arne Thorlakson, extending to A. D. 1320. The fate of the editors of this work is singularly melancholy,—the author of the notes, Gisle Bryngulfsen, was drowned in the prime of life,—of two promising young students who assisted him, one, Thorasen Oefiord, experienced the same fate on his passage home, and the other, Sigurd Stephensen, died soon after in early life. The same society have published (1821-1830)

quarto

taining the history from 1263 to 1743.

other performances we have already mentioned. He was succeeded by Kolskeggr, whose learning also procured him the same honourable title, by Strymer Frode, Sturle Thordson, and some others of less note. The finishing hand was put to the whole by Haukr Erlendsen, who was several times lagmann of the island, and died in 1334. Many manuscripts of this work exist, and several editions of it have been published, though none of them, it is said, particularly accurate,—a circumstance the more to be regretted as many important facts in northern history depend on its testimony. Like most of the other compilations of the period, it contains frequent quotations from the older poems, the interpretation of which has exercised the ingenuity of antiquaries.*

Poetry seems in all nations to have preceded prose composition, and often to have been carried to a high state of perfection before the latter was even attempted. This arises from the pleasure derived from measured sounds, and the ease and security the mind attains in remembering words arranged according to a fixed law. Hence the tales of the skalds and sagamen were formed and recited or sung according to a peculiar measure. Though the natural genius of the northern nations and their less excitable temperament led them to prefer poems founded on historical facts, in which the acquisition of knowledge was combined with the charms of harmony, yet all were not of this kind. They had ficti-

* We are happy to learn that the Society of Northern Antiquaries at Copenhagen, who have done and are doing so much to elucidate the early history of the North, are about to publish a more correct edition of this work. To the same Society we owe a complete edition of the historical sagas of the Icelanders recording events out of that island. The original text now completed fills twelve large octavo volumes, under the title of Fornmanna Sögur. The Danish translation of similar extent is also complete, and seven volumes of a Latin version, entitled "Scripta Historica Islandorum de rebus gestis veterum Borealium," have also appeared. This is said to be "Opera et studio Sveinbjornis Egilssonii in Islandia,"—an honourable testimony to the literary character of the country.

tious sagas, in which both the hero and the incidents were the creations of the poet's fancy, and where his power and skill in describing character as well as in combining events were displayed to the greatest advantage. These romances, as they may be called, arose at a late period in the literature of the north, when the reciting and composing of poems had become an art, and the demand for novelty on the part of the listeners could not be gratified by real occurrences. These sagas are, however, easily distinguished from those that treat of real persons and events, by the tone and style, the endeavour after effect, the improbability of the incidents, and by the fact that the few genealogies which do occur differ from those in the other sagas and in the Landnamabok.

Besides the Poetic Edda, the most extensive remains of northern poetry are the verses quoted in the sagas as sung on particular occasions by the characters introduced. These are not confined to the skalds, or even to men, but are put into the mouths of women and girls, proving that poetry was at that time a national accomplishment, and not confined to the great or learned part of the people. These fragments, of which above five hundred lines are quoted in the Kenningar, or second part of the Edda, are ascribed to various poets, most of them natives of Iceland. The subjects of them also vary: some, as Gunnlaug Ormstungas Saga, and especially those of Kormak, sing the tender passion; others are descriptive, but mostly historical, declaring the virtues of some hero, and sometimes of the skald himself, or his friends. Satire was also a favourite mode of composition, and so prevalent that it was found necessary to restrain it by statute. As an instance of its power, it is told that the Icelanders, provoked by Harald Blaatand, king of Denmark, who had seized one of their merchant-ships, made such severe verses on him that he sent a fleet to ravage the island. This obliged them to make a law by which any one who should indulge in

satire against the sovereigns of Norway, Sweden, or Denmark, was subjected to capital punishment.*

Owing to the depressed condition of the country during the following period, most of these works have perished, and the names of their authors have been almost forgotten. There are, however, many whose fame time has failed to obliterate, and in the Heimskringla and other sagas, some of which describe the actions of individual skalds, so much of their history is related that it has been said that their biographies would fill many volumes.† Amongst the most celebrated of these bards we find the names of Ragnar Lodbrok, Egill Skallagrimson, and Eyvind Skaldaspilder, whose works, though not produced in Iceland, have been preserved exclusively by the natives of that country. Of these the last is considered as holding the first rank among the northern poets, and his Hakonarmal is accounted one of their best productions. He also composed an ode in praise of the Icelanders, which so gratified the nation that each peasant contributed three pieces of silver, of which they formed a clasp for a mantle, fifty marks in weight, and sent it to the skald.‡ Other distinguished poets of this period were Olaf Hvitaskald, Sieghvat Thordarson, Thord Kolbeinson, and the famous Snorro Sturleson, whose laudatory odes or drapa gained him friends in every land.§

Poetry, even at that early period, acquired a peculiar form and appropriate diction, named Asa-mal, or language of the gods. In the more recent specimens the measure is extremely complicated, as the skalds from the eleventh century delighted to exercise their ingenuity in multiplying to an almost endless extent the varieties

* Mallet's Northern Antiquities, vol. i. p. 187.

† Müller, Island. Hist. p. 1[illegible]9.

‡ Heimskringla, Harald Graafields Saga, kap. 18.

§ Henderson's Iceland, vol. ii. p. 353. Besides these in the text he also names Einar Skalaglam, Gunnlaug Ormstunga, Marcus Skeggiason, Ottar Svart, and Sturla Thorarson, as celebrated poets.

of metrical systems. But with their departure from nature and simplicity they lost much of the true merit of poetical composition, and the fetters they imposed on themselves marred at once the harmony of the verse and the graceful freedom that distinguished their predecessors. The oldest metre was that called by them the fornyrdalag, or "the ancient lay," closely resembling in measure, cadence, and alliteration, the poetical remains of the Anglo-Saxons. It consists of short lines containing two or three feet, the former predominating in the more primitve poems; and traces of the more intricate forms do not appear till the reign of Harald Haarfager. Its most prominent feature were the alliterations it required, which constituted its chief ornament and almost exclusive characteristic. Though found occasionally in the poetry of other nations, this was so far peculiar to the great Gothic family, that they alone seem to have possessed a scheme of versification entirely founded on it. These alliterations supplied the place of our rhyme, which, however, was not altogether unknown, as several examples of it are found in the old sagas, and in Egil's far-famed poem the Hofudlausn, or "Redemption of his Head." It was in the use of rhyme or assonant syllables, either occurring at the end or more frequently in the middle of the lines and even of words, that the later systems, of which more than 300 have been enumerated, differed from the ancient. The most common of these was the drottquaede, "the heroic verse," or "king's song," used by the greater number of poets after the 9th century, consisting of lines of six or eight syllables. Poetry was also distinguished from prose by its circumlocutions and bold figurative imagery, which now seem far-fetched, and render it extremely dark to a reader not thoroughly acquainted with the mythology and customs of the period. Some of the poems, however, are very simple, as those ascribed to women and children, whilst such as were composed with the greatest care by the true skalds are remarkably artificial and obscure. It also possessed a vocabulary in some

measure peculiar to itself, the words of which were never employed in prose or in common life. Many of these terms have a striking resemblance to the Anglo-Saxon, and in all probability were in common use at the time when the two nations issued from their original abode, thus forming fragments of that primitive tongue spoken by the ancestors of all the Teutonic nations. This circumstance by no means prevented the poetry from being popular, and is a strong proof of its great antiquity, its language remaining fixed whilst that generally spoken was in a state of constant mutation.

The similarity of the Icelandic speech to the Anglo-Saxon is not confined to poetical words and phrases alone, but is also found throughout the whole of its fabric, and even in regard to some of the letters, such as the *th* of the Icelandic, which, though unknown to most of the allied dialects, is common enough in English. The reason of this resemblance is easily found in history, whence we learn, that not only were the Saxons the nearest neighbours of the Scandinavians, but that they were intermixed with Jutes and Angles, who undoubtedly belonged to the same race. Besides the resemblance common to all the German and more northern tongues, our own will for this reason be found to possess many peculiar to itself; and, even at the present day, the Danish has more similarity to it than to the German, and many anti quated expressions on the western coast of Jutland are altogether English. This resemblance was preserved by the constant intercourse between Britain and the northern nations either for peace or war, which continued till Canute united them all under a common sway. Even before this time, the Scandinavian language was known in Iceland as the Danish tongue (Dansk Tunge). It probably received this name at the time when Norway was still divided into numerous independent states, and when Denmark was governed by a Rolf Krake, a Ragnar Lodbrok, or some such powerful sovereign. Language was then the only point of unity

in Norway, and this, not being peculiar to her alone, was named from the more extensive kingdom.*

* For the above account of the ancient Icelandic literature, the author is chiefly indebted to the very interesting treatises of Bishop Müller (Ueber den Ursprüng und Verfall der Isländischen Historiographie, and Ueber die Nationalität der altnordischen Gedichte). He has also consulted Henderson's able appendix on Icelandic poetry (Travels, vol. ii. p. 323-400), Wheaton's Northmen, p. 49-110, and Depping's Histoire des Normands, tom. i. p. vii-xxix. In Conybeare's Illustrations of Anglo-Saxon poetry (Lond. 1826), Introd. p. xxxix, some curious remarks on the similarity of the Icelandic and ancient Teutonic metres occur, and the remarkable coincidence of the poetry of these nations, both in form and language, is illustrated by a literal translation of Gudrun's Lay into Anglo-Saxon verse.

CHAPTER V.

Modern History of Iceland.

Changes occasioned by Loss of Independence—Extinction of Literature—Stability of Language—New Laws—Disputes of the King and Clergy—Papal Exactions—Crusaders—Hakon V.—Misfortunes in Fourteenth Century—Voyage of the Zeni—Commerce with England—English Bishops—John Gerriksen—Destitution of the Island—Governor slain by the English—Christian wishes to pledge the Island to them—Advantages of this Trade—Religious Condition—Morals of the Clergy—Superstitions—Reformation—Opposed by Jon Areson—His Execution—Suppression of Monasteries—Translation of Bible—Gudbrand Thorlakson—Arngrim Jonas—Pirates in Seventeenth Century—Commerce—Trials for Witchcraft—Smallpox in 1707—Icelandic Revolution—Conclusion.

The history of Iceland, in some measure, closes with the events related in the last chapter. By accepting the Norwegian monarch as sovereign, it was in reality reduced to a mere province of that kingdom, though nominally retaining the rank of an independent state. The shores of the Thingvalla Vatn might still be enlivened by the annual assembly of the Althing, but the importance of this court had perished with the national freedom, and scarce any other employment remained than to register the laws proposed for its reception. The very mildness and equity of the royal government for many years, also contributed to destroy the influence of that body, by increasing the public confidence in their governors, and by giving the members no occasion to complain. The power of the king also easily enabled him to suppress those feuds and tumults which during the last struggles of the aristocracy had spread such misery in the land; and the people, enjoying a degree of peace and security unknown

to them or their fathers, were speedily reconciled to the foreign yoke.

The changes produced were not, however, all for the better, nor of such a pleasing nature as the one just mentioned. During the period of independence, every man could turn his talents to account, and by participating in the national affairs, might hope to attain distinction. But this was no longer the case; power emanating from a prince in a distant land was seldomer conferred on persons of real abilities, and, being supported by foreign authority, had less need of their assistance. That inward vigour which formerly distinguished the Icelander had now vanished, for the nation, no longer depending on its own resources, trusted its lot to that higher power to which it had become subject. The plain upright manners of their forefathers remained uncorrupted, but the energy of mind which enlivened them was quenched for ever.

Literature, which had formed the glory of the past age, first felt the decline of this; for freedom no longer led men to perform gallant deeds, or inspired the poet's soul to sing their praise. The interest in public affairs, much weakened during the feuds of the Sturlunga, was now also completely superseded by internal tranquillity. The skald ceased to relate the history of his native land, for it no longer produced men or actions worthy to employ his pen. The annalist could only fill up the list of years with a catalogue of the judges, or accounts of the famines and pestilences which now frequently ravaged the country. But before a century had elapsed, even this lowest species of historical literature also ceased; and from 1360, when the plague desolated Iceland, no annals were composed till Biorn of Skardsaa, about two hundred and fifty years afterwards, resumed the practice of recording passing events. The skaldic songs on the warlike adventures of their contemporaries, so common even in the close of the last period, were now changed into marriage-verses, birthday poems, or at most humble rhymes in imitation of the old sagas.

Neither did the taste for external history long survive among the Icelanders. The welfare of the country had suffered much during the civil wars; and as many estates, on its submission, came into the possession of the Norwegian kings, the wealth and leisure of the chiefs soon vanished. Commerce likewise fell into the hands of strangers, the journeys of the natives to other countries became less frequent, and their knowledge of foreign affairs more incomplete. At the same time, the congratulatory verses of the vassal-poet to his prince were naturally less valued than the free skald's song of praise to a stranger king. They no longer received such rich rewards, and soon after both skald and sagaman were banished from the court. Hence, as Torfæus justly observes, Hakon, by subjecting Iceland, though he left his successors a more extensive kingdom, at the same time injured their glory by robbing them of the men who would have immortalized their name.

Even when the Icelanders, subsequently to this period, travelled into Scandinavia, they found themselves strangers there. Through carelessness and an increasing intercourse with Germany, the original language had begun to change in Denmark in the thirteenth century; in the following one this corruption extended to Norway, and from the time of the union to Sweden also. Thus, throughout all the Scandinavian kingdoms the Danish tongue grew mute, and along with it the ancient sagas; whilst in Iceland, separation from other nations, and the perusal of skaldic songs and histories, secured the continuance of its tones. This separation from the rest of the world, both by place and language, was a great mean of preserving those old monuments, towards which, as the last remnant of ancient glory, the very isolation of the natives excited their attention and increased their love.*

This short sketch of the extinction of the historical literature of Iceland will sufficiently account for the

* Müller, Island. Hist. p. 88-91. Torf. Hist. Nor. tom. iv. p. 367.

meagreness of the succeeding portion of the national annals. Hakon did not long enjoy the territory which had cost him so much labour to win, for he died in 1263, at Kirkwall in Orkney, whither he had retired, after his defeat at Largs by the Scottish king. He was succeeded by his son Magnus, surnamed Lagabaetir, or the law-mender, from his zeal in reforming and consolidating the Norwegian statutes, formerly contained in four separate codes. His success in this undertaking induced the Icelanders to entreat him to perform the same office for them. With this request he complied, and introduced several changes, many of them merely verbal, but others more important, as marking the improved spirit and greater enlightenment of the age. Of this kind were the omission of some of the severest enactments against paupers; the mitigating of some cruel punishments for trivial offences; and especially the forbidding the application of torture to females, which had previously been permitted in some cases. This new code having been sent to Iceland by Jon, who had formerly been lagmann, was on this account named the Jonsbok, and received the approbation of the Althing in 1272 and the following year. The close of Magnus' reign was signalized by disputes with the clergy, headed by the Archbishop of Trondheim, whose power now almost surpassed that of the sovereign. These contentions, however, scarcely affected Iceland, although in the agreement between the king and prelate, we find the latter bargaining for a share in its commerce, which, it may be presumed, had already become a profitable speculation.

Under his successor, Erik the Priest-hater, these disputes were carried to still greater excesses, and by a royal decree the bishops of Iceland were deprived of much of that authority which they had assumed in all civil matters in the least degree connected with religion; and also of a considerable portion of the church lands, which had been in the possession of the laity before the Norwegian dominion, but subsequently recovered. For these actions the king has been much censured by the

Roman ecclesiastical writers, and threatening letters were sent him from the pontiff himself. But the dispute had a greater reference to the kingdom of Norway, and it was there that the battle was necessarily fought. The demands of the Archbishop of Trondheim, we may however mention in passing, were of such a nature, and encroached so deeply on the royal prerogative, that we cannot wonder they were violently resisted. In Iceland, the parties seem to have prevailed alternately during some years, till the question was finally settled in 1295, by Arnar, bishop of Skalholt, who had gained the favour of the monarch whilst accompanying him on an expedition into Scania. The points in dispute were generally compromised, both sides yielding to a certain extent; and with the exception of a few changes in the laws, no other remarkable occurrence took place during his reign.*

The spirit manifested by the clergy in this contest shows that they had now lost much of their primitive simplicity, and that the power of the Roman see was more fully established. Religion no longer possessed that purity which distinguished it during the aristocratic period, but was obscured by legendary tales and miracles, whilst the celibacy of the clergy and the worship of saints and images were generally introduced. Poor though the country may appear, it did not escape the papal exactions, and during the thirteenth century, the Icelanders were several times requested to contribute towards the recovery of the Holy Land. At a former period, when the spirit of the nation was yet unbroken, many of them had joined Sigurd in his romantic expedition to Palestine, and it is believed that others followed in the train of that Danish prince, who is immortalized in the verses of the Italian bard.† But at

* His queen, Margaret of Scotland, bequeathed a precious garment to the cathedral of Holum, in Iceland.

† Sveno del Re de' Dani unico figlio,
Gloria, e sostegno alla cadente etade,
Esser tra quei bramò, che 'l tuo consiglio
Seguendo, han cinto per Gesù le spade.
TASSO, Gerusal. Lib. cant. viii. st. 6, 7.

this time the missionaries were less successful, and of those who assumed the cross, few or none had sufficient zeal to carry it to the Holy Land, most of them purchasing dispensations. In the beginning of next century the Bishop of Holum received a brief from Pope Clement, enjoining a collection for the crusades, to give greater effect to which, a general remission was promised to every one who should contribute. Peter's Pence had also for some time been levied in the island, and a few years later we again find the Pope demanding supplies. The influence of the clergy, even at that time, does not appear to have been great, the people following their counsel only when it agreed with their own wishes, and frequently opposing them with violence. Hence the kings, though in general hostile to the pretensions of the priesthood, were often compelled to interpose their authority for the protection of the church.*

In the beginning of the fourteenth century, the Icelanders still manifested some portion of their former love of liberty, and a determination to maintain their rights. Accordingly, on the accession of Hakon to the Norwegian throne, before they would consent to do him homage, the Althing demanded a ratification on his part of the original contract. The points on which they particularly insisted were, trial by the island courts, native magistrates, better regulations regarding commerce, and equal privileges with his other subjects. These rights being secured to them, they declared their willingness to pay him that tribute and obedience which had been agreed on; but if not, they insisted that they should be freed from the obligation of their oath of fidelity. This question appears not to have been settled in 1306, when the Althing still hesitated about paying taxes; but it must have been arranged soon after, as in 1310 the king sent them wood to rebuild the church of Skalholt, which had been destroyed by lightning in the previous year.

* Crymogea, lib. iii. pp. 108-123, 129. An. Isl. Reg. Script. Rer. Dan. tom. iii. pp. 48, 114, 128, &c. Hist. Eccles. Isl. tom. i. p. 571, &c. Torf. Hist. Nor. tom. iv. p. 271.

Much of the history of this century is filled with the relation of physical evils which desolated the land, and effectually subdued the spirit of its inhabitants. The latter part of the former was marked by violent earthquakes, during which the sky was darkened with clouds of sand, probably from some volcanic eruption in the central desert. These were followed by an unusual accumulation of Greenland ice around the whole shores, along with violent thunder-storms, and repeated earthquakes. One of the most remarkable of these happened in the year 1339, which is said to have uprooted a hill in the south from its very base, and to have opened a boiling fountain 140 feet in diameter. It was also felt at the same time in Norway, where it destroyed fifty houses in one district. Hekla and the submarine volcano of Reikianes were likewise in activity, and in 1345, several islands emerged from the waters of the Breida Fiord. These convulsions of nature became less frequent towards the middle of the century, but their place was occupied by a no less frightful visitation. The black death, which desolated Europe about that time, also reached Iceland, and between 1402 and 1404 a similar pestilence swept off nearly two-thirds of the population. Many beautiful valleys are still pointed out, where its ravages have never been repaired, and the crumbling walls of the cottages alone remain to tell that there man once had his home. It is affecting to read the simple narrative of these calamities in the native historians, and to perceive how the bright image of the past, forcing itself on their view, only deepens the surrounding gloom.*

It was about the close of this century (1380 to 1400) that the voyage of the two Venetians, Nicolo and Antonio Zeni, is said to have taken place. The first of them was driven by a tempest on the coast of a country which he calls Friesland, where he was well received by Zichmni,

* Many instances of such valleys are noticed by Olafsen. Vid. theib i. pp. 140, 197, 269, &c. An. Isl. Reg. p. 123. Crymogea, pp. 123, 130.

the king of Porland, who was then subduing it. They entered his service, and, besides many other adventures, relate that this prince, after conquering several of the neighbouring regions, determined on assaulting Iceland, but was induced to desist because he found it so well fortified that he durst not attack it with his small ill-armed force. He, however, subdued seven other inferior islands situated in the same sea, named Talas, Broas, Iscant, Trans, Mimant, Damberc, and Bres, on the last of which he built a fortress and left some troops. To this narrative, which has acquired undue importance from the circumstance that the author is supposed in a subsequent part of it to refer to America, it would be a sufficient objection to state, that not the slightest hint of it is to be found in the native historians. But besides this, there is no period in the history of the island when it was at all fortified or able to resist even a weak armament; and the excesses of the English merchants, a few years later, show that it was not by any means so defended at this time. Not less fatal to the story is the fact, that not only are there no islands bearing the names above mentioned,—which by the way are completely foreign to the Icelandic language,—to be found on its coast, but that in truth there are not seven inhabited islands at all near it. These reasons induce us to regard this part of the relation as utterly unworthy of credit.*

* The original of the part referring to Iceland is as follows:—"Zichmni si diliberò di assaltar Islanda, che medesimamente con l'altre era sotto il Re di Norvegia: ma trovò il paese cosi ben munito, et guarnito di difesa, che ne fu ributtato per haver poca armata, et quella poca anco malissimo in ordine di arme, et di genti. Per laqual cosa si parti da quella impresa senza haveri fatto nulla, et assalto nelli istessi canali l'altre Isole, dette Islande, che sono sette, cioè Talas, Broas, Iscant, Trans, Mimant, Damberc, et Bres: et messo tutto in preda edificò una fortezza in Bres."—Ramusio, Navigationi (Venetia, 1583), tom. ii. fol. 231, A. The theory of a learned author, who would make Estotilanda Ireland, cannot be correct, as this is mentioned under its own name "Frislanda, che è Isola assai maggiore, che Irlandae."—Fol. 230, D. And that we may not again need to refer to this subject, we may state that, for the same reason, Engroneland is not Greenland,

The commerce of Iceland in the thirteenth and fourteenth centuries fell more and more into the hands of strangers; the general depression of the country conspiring with the want of proper ships to produce this effect. In the several treaties with the Norwegian monarchs freedom of trade had been always one of the stipulations. Besides, the king was bound to send six merchant-vessels to Iceland every year; and the desire of the archbishop to participate in this traffic proves, as we formerly observed, that notwithstanding the poverty of the country it was by no means unprofitable.* The most interesting branch of their commerce was, however, that carried on by the English, which began to rise into importance about the commencement of the fifteenth century. Fishermen from the British shores, as we have seen, were in all probability the first discoverers of this remote island, and the introduction of the Norwegian colonies does not appear to have interrupted their intercourse. As a proof of this, it may be stated, that English tapestry and linen are mentioned among the articles imported by the merchants who frequented it at a very early period. There is also evidence that Icelandic ships visited the English harbours during the reign of Henry III., and at the epoch of which we are now treating this communication became more active and regular. The dried fish, of which this island, previous to the dis-

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this being also known by its own name (Gronlanda, vid. fol. 233, C). The fine monastery in the latter, and the ingenious uses to which the monks put the water of the hot springs, warming their apartments and hot-houses, where all kinds of fruit were produced, is the best part of the romance, as we must consider it. The original will be found in the second volume of Ramusio, third and fourth

On the other side the principal authorities are Foster, Northern Discoveries, b. ii. ch. 3; Murray's North America, vol. i. p. 28; Malte-Brun; Walckenaer; M. de la Roquette in the Biographie Universelle; and especially the two treatises of Cardinal Zurla, Dissertazione intorno ai viaggi e scoperte settentrionali di Nicolo e Antonio Frat. Zeni, and Di Marco Polo, &c.

covery of Newfoundland, was the great storehouse, appears to have been the object principally sought after by the English, and had been in common use in their country from the beginning of the fourteenth century. Soon after that time we find Edward III. granting several privileges to the fishermen of Blacknie in Norfolk, and exempting them from his ordinary service, on account of their commerce with Iceland. The town of Lyne in that county also followed the same trade, the voyage being usually made in a fortnight. In 1412 it is mentioned in the native annals, that thirty ships engaged in fishing were seen off the coast at one time, although Erik of Pomerania had the year before prohibited all strangers from resorting to this part of his dominions without special licenses. This regular permission appears to have been procured by several of the English merchants, whilst others chose to dispense with it; but the traffic, meanwhile, continued to increase, so that in 1415 there were no fewer than six of their ships in the harbour of Hafna Fiord alone. In that year Erik complained to Henry V. of his subjects frequenting Iceland without leave, on which the latter monarch caused proclamation to be made in all the ports on the east coast forbidding any person to go there to fish, or for any other business, except what was usual in ancient times. Notwithstanding this we find in 1419 twenty-five English ships wrecked on this coast in a dreadful snow-storm; whence it is manifest that the commerce still continued, the natives preferring their goods, which were both cheaper and better than those furnished by the Danish monopolists. Even the Althing that year petitioned King Erik against the prohibition of the English merchants, complaining with but too much justice that the inhabitants had not been supplied with foreign necessaries as was promised in the original contract. The petition was of course rejected; but no measures having been taken to redress the grievances which had occasioned it, the illicit trade continued, often, it is alleged, with the

secret connivance or even the direct permission of the governor.*

During the next six years the English disgraced themselves, and almost entirely forfeited the good opinion of the natives, by the violence with which they resisted the attempts of the Danish officers to levy the duties, or to put a stop to the whole trade. Their principal station was on the Westmanna Islands, near which are the best fisheries, and where they built houses, and conducted themselves in every respect like masters, repelling by force every effort to dispossess them. In the northern parts of the island their conduct was marked by similar excesses; they plundered the village of Bessestad four times, burning several churches, and carrying away every thing valuable. They also seized on some of the most wealthy inhabitants, compelling them to pay ransom, and even took two of the Danish officers prisoners to England, where, on their liberation, one of them presented a petition to the parliament or council complaining of this unjustifiable treatment. But such were the profits or attractions of this commerce that his companion sailed to Iceland next year in an English vessel, and again returned with it to that country; the traffic continuing exceedingly active notwithstanding the prohibitions of both governments.

The great inducement to this trade on the part of the English was the demand for stock-fish, and on that of the Icelanders the superior quality of the British merchandise, especially of their strong ale. This connexion was confirmed about the same period by the appointment of several natives of this kingdom to the highest ecclesiastical offices on the island. One of these was John Johnson of Holum, who, after visiting his native land several times, at last resigned his bishopric, in which he was succeeded by John Williamson, one of his countrymen. The see of Skalholt

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* Viga Glum Saga, p. 6. Hakluyt, vol. i. p. 122. Rymer's Fœdera, vol. ix. p. 322.

was also connected with England by its bishop John Gerriksen, a Swede by birth, and formerly Archbishop of Upsala, but who was deprived of it for bad conduct. He appears to have gone first to Britain and thence to Iceland, whither he was accompanied by two English priests and thirty Irishmen. The manner of his death is worthy of notice as a striking picture of the condition of the island at this time. His brother having been scornfully rejected by a young lady whom he courted, out of revenge slew her brother, and burnt the farm of Kirkebol, in the southern division of the island, with all its inhabitants. The lady, however, escaped, and, in the true spirit of chivalry, vowed to marry whoever would avenge her cause on the bishop. This was accomplished by Thorward, a son of the rich Lopter of Modruvalla in Oe Fiord, who the following year arrived at Skalholt with an armed band on the evening of St Thorlak's Day. Soon after the mass was begun he entered the church, seized the prelate, led him out to the Bruarau, and tying a stone about his neck, or, as others have it, sewing him up in a sack, cast him into the raging stream. Thirty of his foreign attendants were at the same time put to death in the cathedral itself; and yet such was the lawless character of the country that all these atrocities went unpunished.*

Still more important for the island was the use which the bishops made of their connexion with England as a pretext for procuring liberty from Henry VI. to continue the trade. One of them affirmed that he was afraid to go so far to visit his see, and wished to send the master of a vessel thither to inquire into its condition and to collect the first fruits. If we may believe a petition from the Bishop of Skalholt to the English government in 1440, the island was then in a very

* Arngrim Jonas, together with the Annals of Iceland and of the diocese of Skalholt, place the death of the bishop in 1432, which is probably correct; Olafsen in 1434; and Prof. Magnusen in 1443. Crym. p. 134. Olafsen, th. ii. p. 230. Athenæum, No. 512, p. 596.

deplorable situation; the commerce with Norway was almost entirely stopped, and no cloth, bread, or salt, no wine, beer, nor indeed any liquor, except milk and water, was to be found in the country. Such was its wretched condition that he expresses his fear lest, unless supplies were received from England, divine service, the celebration of the communion and of baptism, would soon cease. On these representations two merchants were permitted to send ships thither with the necessary articles and to receive its produce in return.*

Things continued in this state during the remainder of Henry's reign, the trade being partly licensed and partly carried on in opposition to both governments. In 1453 Christian I., who had manifested great zeal in suppressing the tumultuous bands of armed men who wandered about the country killing and plundering the peaceable inhabitants, gave a commission to Biorn Thorleifson to prevent all English or Irish from frequenting Iceland without the royal permission, and to enforce the payment of the duties. Biorn about this period had taken possession of the vacant see of Skalholt, from which he was only expelled by the authority of the king and the threatened excommunication of the archbishop. In 1456, when returning from a voyage to Norway, he was wrecked on the Orkneys, deprived of his goods, and detained prisoner for some time. Next year, however, he reached his own country, and being appointed governor, endeavoured to levy the duty of six per cent. imposed on English merchandise; but in this attempt he lost his life, having been attacked by the British traders at the harbour of Rif, and killed with seven of his followers. His wife Olöff escaped in a fog, leaving her son Thorleif in the enemy's hands. When she received the mangled body of her husband, which the foreigners sent her cut in pieces, this high-spirited woman declared that she would shed no tear for him, but take care that his death should not be unavenged. Having,

* Rymer's Fœdera, vol. x. p. 762.

therefore, first ransomed her son, she put on a coat of mail, attacked, and after a bloody contest defeated the strangers, taking fifty of them prisoners and seizing three of their ships. She generously spared their lives, and soon after restored them to liberty; after which she went to Denmark, where the king, by way of retaliation, captured four vessels from London and Bristol. The English retorting in the same manner, a war ensued between the two countries, which however was carried on with little spirit, and concluded by a truce in 1469, converted in 1474 into a peace, by which things were placed on their former footing.*

Ships from other nations seem also to have frequented Iceland about this time; and from his son's life we learn that the celebrated Columbus was on that island, or Tyle, as he calls it, in 1477. It has been supposed, and not without some show of probability, that he might here have heard of the discovery of America or Vinland by the Northmen. In opposition to this conclusion, however, we shall merely refer to the labour which it cost the great navigator to get his plans put into execution, and to defend them from the accusation of being the mere dreams of a disordered fancy.

Columbus takes notice of the English trade in fish, and in 1490 we find it confirmed by a treaty concluded at Copenhagen, in which, besides the usual freedom of commerce on both sides, it is expressly stipulated "that the English merchants and fishermen may freely repair to Tyle on paying the customary dues and getting their licenses renewed annually." This compact was published in Iceland by the chief magistrates Thorleif Biornson and Theodorick Pining, the latter of whom had some time previously been appointed to clear these seas of our countrymen; and the fact that a contagious disease was said to have been conveyed to the island in 1493 in a bale of English cloth, proves that its privileges were not neglected. In 1518 there were 360 of their

* Crymogæa, pp. 136, 139. Olafsen, th. ii. p. 231.

merchants in the harbour of Hafna Fiord alone, who, as appears from the complaints of Christian II., had not laid aside the violent habits of their predecessors. This monarch was only precluded by the events which deprived him of his crown from pledging Iceland to the same people for a sum of money. Had this happened it would probably have remained annexed to the British empire, and it is curious to speculate on what might subsequently have been its fortune.* As it was, the trade continued very brisk during the first half of the sixteenth century, and though it declined towards its conclusion, we yet find Elizabeth, in 1595, writing to Christian IV. to permit a merchant of Harwich to repair to the Westmanna Islands for fishing as in former years. To this the Danish monarch answered, that her subjects had only been prohibited because they would not comply with the ancient treaties, but that if they were willing to observe the conditions, they should be free to fish, except in the above-mentioned port, now, as in past times, appropriated to the use of his own court. Even so late as 1615 the fisheries there employed 120 British vessels, and this continued till it was ruined by some new regulations concerning salt in 1782. We have treated this subject at some length, not merely because it is connected with the commercial history of our own country, but also on account of its important influence on the fate of Iceland. In the opinion of a high authority, the English trade would have been conducted peacefully and advantageously if the Danish monopolists and government had not interfered; and Iceland, was only rescued from that destruction which involved the sister colony in Greenland, by our merchants, who, in spite of the prohibition, supplied it with articles absolutely necessary for the existence of its inhabitants.†

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* Crymogea, lib. iii. p. 143.

† Professor Finn Magnusen on the English trade to Iceland, in the Nordisk Tidsskrift for Oldkyndighed. Athenæum, No. 512, p. 595. Many of the treaties will be found in Rymer's Fœdera,

In tracing the commercial relations of Iceland, we have for the sake of connexion passed over some other events of an ecclesiastical character, closely connected with the Reformation, which it will now be necessary to resume. Mildness and patience seem to have been by no means the prevailing character of the Icelanders, and even the females long retained that love of war which distinguished their heathen state. Hence the clergy, though many of them were far from being models of Christian meekness and piety, often found it impossible to maintain their authority over their turbulent flocks. It appears that Biorn Thorleifson was not the only chief who, towards the middle of the fifteenth century, had usurped the revenues of the church, and required the royal authority to restrain his violence. Indeed, complaints on this head seem to have been mutual, as we find, about 1480, both the king and the archbishop interfering; the former to repress the exactions of the clergy, the latter to procure them payment of their just dues. If we may judge from the number of their attendants, the bishops were at that time the most important men in the island, as, by a kind of sumptuary law passed in 1513, they were allowed thirteen followers, whilst the governor and lagmann were restricted to ten.

Many of the prelates and inferior clergy were, here as in other parts of Europe, men whose lives disgraced the profession they followed; and thus, by lessening the respect of the people for the old faith, promoted involuntarily the change that was about to occur. Of this kind was Gottschalk, appointed to the diocese of Holum in 1500, who having quarrelled with John Sigismund, who was elected lagmann in 1512, left no means un-

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vol. ix. p. 322; x. p. 416; xi. pp. 264, 273, 555; xii. pp. 375, 381; xvi. p. 275; and the licenses, ibid. vol. x. pp. 645, 659, 682, 711, 762. A curious remnant of this commerce is found in the English and French words that still occur in the Ise Fiords and the northern part of Bardestrands Syssel, and which are unknown in other parts of the island. These districts and the south were the chief seats of this traffic. Olafsen, th. i. p. 246.

tried to procure the destruction of him and his whole family by accusing them falsely of various crimes, for which he even got them condemned. His wickedness was however discovered, and himself exposed to universal reprobation. He died in 1520, and was succeeded by Jon Areson, a bold, unscrupulous person, and the great opponent of the Reformation, whose vices appear to have been redeemed by some good qualities. His colleague Ocgmund, the bishop of Skalholt, was strongly suspected of being privy to the murder of Theodorick van Mynden in 1539, with eleven of his companions, though it was never proved, and he purged himself of it by oath in the general assembly of the nation.

Where the manners of the clergy were such, little religion could be looked for among the people. It consisted more in outward rites than purity of heart or conduct; and the Virgin Mary or the archangel Michael found more worshippers than the Almighty Father of the universe. The sagas still continued to be read, to which the more pious, the Bible being unknown,* added that of the Lilia or Lilly, a Messiad of the fourteenth century, containing about one hundred verses. This poem, written in a simple style, contains, along with many superstitions, such a fulness of true Christian poetry, that it cannot be perused without interest even at present. At that period it was so highly esteemed that many read it at least once a-week, and some even repeated it every day as a creed or prayer. Another work tending to preserve a knowledge of the sacred history and its truths was the Stiorn, "government or direction," written in 1255 by Brandr, abbot of Thykkabaer. But all these could not compensate for the want of the scriptures, and the people were degraded

* Bishop Jonson supposes that, in many instances, where it is said that people were sworn on the holy book, all that is meant is only an image of it cut in wood, or cast in a mould, several of which remained in the church of Skalholt even in his time. Hist. Eccles. Isl. tom. ii. p. 183.

by the most childish credulity. We formerly mentioned the magic ceremonies of the heathen period, and we may now add, that those which prevailed before the Reformation were equally gross and absurd. Superstitions which, in other lands, were left to the ignorant or designing, were here, from the thirteenth century to the Reformation, accounted among the learned sciences, and especially practised and encouraged by the clergy. Nor were these looked upon as any way wicked or disgraceful, being dignified with the name of Holy Magic (magia religiosa), and those addicted to them were called Magne Lärder or Kunnattumenn, that is, wise men, a name which they still retain among the common people. During the two centuries prior to the age of Luther, the time when the power of the church and the number of the monasteries was greatest, prosecutions for witchcraft, so common in more ancient times, almost ceased; this kind of superstition, unless when employed to injure some person, not being accounted worthy of censure. The principal pretensions of these wise men were the power of healing all manner of diseases, of causing the veins to open, the blood to spring out, and again closing them, of curing men possessed by evil spirits, and of exorcising these emissaries of the power of darkness. A certain formula and arrangement of words were prescribed in every case for accomplishing such feats. With these they also used some peculiar substances, especially such as were in any way connected with religion or the church, as bells, altar-cloths, the consecrated bread and wine, holy water, incense, and candles. To these were added signingar or benedictions, the sign of the cross, and certain psalms or prayers, which, when either read or worn on the breast, were esteemed infallible remedies against most accidents. With all this they united a belief in the supernatural power of healing possessed by particular plants, stones, and animals. It is melancholy to reflect that such superstitions were not only permitted but practised by the most enlightened part of the nation. What must have been the state of the

illiterate, when those appointed to instruct them in their duty could teach that such things were not only innocent but even holy and divine!*

The Reformation, which had extended to most of the northern states of Europe, soon found its way into Iceland. Though the intercourse with other lands was less constant and active than in former times, yet many of the natives, especially those intended for the church, travelled to Denmark, or studied at the universities of Germany. On their return, these individuals proved the means of privately diffusing the reformed doctrines among their countrymen, which were accordingly soon adopted by many influential and enlightened persons. One of the most distinguished of these was Oddur Gottschalkson, a son of the Bishop of Holum, lately mentioned, but who had been brought up in Norway from his sixth year. He afterwards went to Germany, where he became acquainted with Luther, whose views he embraced. He returned to Iceland with Bishop Oegmund, and remained some time in the service of this violent opponent of the Reformation, from whom however he carefully concealed his opinions and the New Testament, which he kept in his possession with the intention of translating it. He associated himself with his two friends, Gissur and Gisle, both of them converts to the faith, and afterwards bishops of the Lutheran church. In order to conduct his work with greater safety, he constructed a chamber in a cow-stall, where he translated the Gospel according to St Matthew, and subsequently completed the whole at Reikum, where he had

* Olafsen's Reise, th. i. p. 247, &c. Crymogæa, lib. iii. p. 139-144. A crucifix in the church at Kaldadernes was a great object of reverence at the time of the Reformation for the wonders it had wrought. The figure was clothed in a very costly manner, with velvet shoes and numerous gold and silver ornaments. It was pulled down by Gissur, the first Lutheran bishop, but again replaced by the people. It was finally removed in 1587 by Bishop Gisle Jonson, and taken to Skalholt, where it was destroyed. His death soon after was regarded as a judgment of the image upon him. Olafsen, th. ii. p. 228.

gone on leaving Skalholt. But his acquaintance Gissur Einarson had a greater influence on the progress of religion. Christian III., who favoured the Lutheran doctrines, had in 1540 sent Christopher Hwitfeld to Iceland, who received anew the oath of allegiance from the inhabitants. On his return to Denmark, he took along with him Oegmund, now old and blind, who had previously resigned his see, and appointed Gissur in his room. The opinions of the king thus became well known as favouring the reformers, and the new bishop, a learned, pious, and bold man, soon began to make innovations. In 1541 he gave the clergy liberty to marry, and confirmed the precept by his own example. The mass and other popish ceremonies were next abolished, as we learn from a letter he sent to his majesty the following year, complaining that the people were now refusing to pay the usual tithes and revenues to the church. During his life, the Reformation made great progress in the south; his upright, pious conduct, and consistent, straightforward character, overawing all opponents. He was succeeded in 1547 by Marten Einarson, a man of great merit, but unfitted by his gentle disposition to command respect from a fierce turbulent people. He was, however, one of the best sacred poets of the time, and his hymns, some of which are still extant, show him to have been more adapted for the quiet and secluded pursuits of literature than for contending with the storms of his elevated station. Jon Areson, the bishop of Holum, resembled him only in his love of poetry, but was violently opposed to the changes introduced into the church. This prelate, who inherited the fierce intractable spirit of the old northern chieftains, whose blood flowed in his veins, was an enterprising active man, and though illiterate, distinguished for popular eloquence, love of the national literature, and as being almost the last votary of the skaldic muse. Hostile to the new opinions, whether from policy or principle, he had only been prevented by dread of Gissur from openly taking a decided part against them. This

obstacle was now removed, and he began to act in a manner which, manifesting more courage than prudence, led him into a kind of rebellion, justified as he thought by its motives. About 1530, he had induced a Swedish priest, Jon Matthieson, to come to Iceland, with a printing-press, to aid in the distribution of his writings against the reformers; little thinking what a powerful instrument he was putting into the hands of his opponents, or the use that was soon to be made of it in diffusing the Holy Scriptures.

The means he now employed were of a kind more suited to his natural character. Taking arms, he set himself at the head of his Norrlanders, who were much attached to their bishop, and making an incursion into the south, took Marten prisoner, and carried him to Holum. He, at the same time, having dug up the body of the last prelate as an apostate from the faith, cast it into a ditch as unworthy of Christian burial, and conferred the bishopric on his son Biorn. The king now ordered him to Denmark, but he refused to obey, and proceeded to excommunicate a chieftain, though he did not belong to his diocese. A royal mandate for apprehending him having now arrived, he was seized in 1550, by the chief whom he had anathematized, in his house, which he had occupied with an armed force, and seemed by no means inclined to leave. He was conveyed to Skalholt; and there being no vessel ready to take him out of the island, and none daring to keep him in it, he was, on this pretext, tried by the Althing, and condemned along with his two sons. Ari, the eldest, formerly lagmann of the island, was offered his life, but would not promise to forego his revenge; the bishop himself would not consent to live unless they spared his sons; Biorn entreated mercy, but was told that if two such brave men as his father and brother must die, it was fitting he should bear them company. All three were therefore compelled to lay their heads on the block, and though Christiern, at that time governor of the island, consented to the execution, the act was

far from being generally approved. In the north, the stronghold of the Catholic religion, where Areson was very popular, it was peculiarly odious; and some of the inhabitants, in the following winter, making an incursion into the south, slew Christiern, and thirteen others who had been most active in the death of their bishop.

The death of this churchman, however, soon led to the extinction of the papal authority in Iceland, which had been chiefly supported by his influence. There was now no man to head the party; and though the Danish monarch, terrified at the appearance of rebellion which his proceedings had displayed, sent some soldiers into the island, their presence was not required to restore tranquillity. The spirit of the ancient Northmen had undoubtedly been once more awakened, but it was only for a moment, soon again to sink into the slumbering apathy of ages. Some great event, or the presence of some man of superior talents, could alone rouse them into action; but the excitement once over, indifference and inactivity had again possession of their souls. Paul Hwitfeld, therefore, who was sent in 1552 to punish the actors in the late tumults, found it an easy matter to establish the Protestant faith; and Olaf Hialteson having been appointed to the see of Holum, used great diligence in reforming the church, in which he was assisted by Marten, now restored to liberty. The schools, which had latterly been almost annihilated, were not only restored, but also farther endowed by the liberality of the king; and, in 1558, the last trace of Popery was abolished, by the suppression of the monasteries. Of these there were no fewer than nine on the island, namely, four in the north, three in the south, and one in each of the other districts. It was at first intended to establish public schools in place of these foundations, but this philanthropic design was not put in execution, and the government was content with restoring the two old ones.*

* Arn. Jon. Crym. lib. iii. p. 145-148. Olafsen's Reise, th. ii. p. 231. Rheinwald's Repertorium, vol. i. p. 158.

The influence of this great event on the morals and literature of Iceland was similar to that exercised by it in other parts of Europe, modified, indeed, by its peculiar circumstances and limited society. In regard to the former, one great benefit it produced was the abolishing of the privilege of sanctuary claimed by the church, in virtue of which the greatest criminals were protected till, having obtained absolution, they were again let loose on the public. Its effect on the latter was equally beneficial. The spell that fettered the literary spirit of the nation was now dissolved, and though prevented by the altered circumstances of the surrounding countries from attracting that attention which crowned their labours in former days, the works of her sons were neither few nor unimportant. Most of their writings have relation to the events of their own country; and as the affairs of Iceland did not for some time attract the notice of European readers, their fame was confined to the spot which gave them birth. In the former period of their literature, they had shone alone, and there was no brighter luminary to withdraw the spectator's eye; now the surrounding nations had not only equalled but surpassed them, and, busied with the mighty events constantly springing up around themselves, had no leisure to attend to the labours of this small unconnected community.

The first work that engaged the attention of the Icelanders was the rendering of the Scriptures into their own language. The translation of the New Testament by Oddur, already mentioned, was printed at Copenhagen in 1540, accompanied by the prefaces, and a few notes from Luther's German version. Some other portions of the Bible followed, but it was not till 1584 that the whole of it was given to the people in their vernacular tongue. This great benefaction was due to Gudbrand Thorlakson, who was born in 1542, and chosen bishop of Holum when only thirty years old. This office he retained fifty-six years, and was so assiduously employed in labouring for the welfare of his countrymen, that even at the pre-

sent day his name is never mentioned but with the utmost affection and respect. He not merely executed the translation, adopting the parts formerly published, but having bought the press introduced by Areson, assisted in printing it with his own hands. The expense was partly defrayed by the bishop, and partly by a present from the king, aided by a tax levied on all the churches in the island. The version was made, not from the original languages, but from the German one of Luther, and in 1584 the work appeared in a folio volume. He afterwards published an edition of the New Testament in octavo; and in the course of his long life, eighty-five works, mostly theological, written either by himself or under his superintendence, issued from the press.*

Another distinguished literary character of this period was Arngrim Jonas, the friend, and for a long time the assistant in his episcopal office of Bishop Gudbrand. From his lonely residence in the north of Iceland, this learned and laborious individual sent forth twenty-six works on various subjects, of theology, law, history, and philology, chiefly illustrative of the antiquities of his own and the neighbouring countries. They are, for the most part, composed in remarkably pure and elegant Latin, in the use of which he surpassed all his contemporaries. At this time, too, the national annals, the series of which had been interrupted for more than two centuries, were renewed by Biorn of Skardsaa, who wrote those from 1400 to 1645, with a tedious minuteness, by no means justified by the importance or interest of the events related. Besides these, he was also the author of some other works, though none of them of great celebrity.

The progress of the seventeenth century is principally marked by adverse events, physical evils, and the rapacious violence of men who united to waste this miserable island; while the wretched inhabitants, long unaccustomed to

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* A list of them will be found in the Hist. Eccles. Isl. tom. iii. p 378-391. Vide Henderson's Travels, vol. ii. Appendix i.

the use of arms, could offer no resistance even to a small band of pirates. The oppression they suffered from these marauders was extreme, no part of the coast being for a moment secure from their attacks. It is a melancholy fact, that the majority of them were French or English, as if the two most powerful and civilized of the European nations had combined to oppress the poorest and most helpless, and to visit on their descendants the evils which had been endured from the ancient Northmen. In 1627, some Algerine corsairs, too, who found their way to that remote region of the ocean, spread universal dismay round the whole coast. After plundering many places in the south and east, they landed on the Westmanna Islands, burnt the church and other houses, and carried away captive all the inhabitants whom they had not massacred. The clergyman, Jon Thorstensen, murdered by one of his own countrymen who had joined the invaders, is still looked upon as a martyr, both in the island and in other parts of the country. He was a pious man, as well as one of the best sacred poets of the period, and is well known by his translations in verse of the book of Genesis and the Psalms, which have been printed. A tower was afterwards built to protect the inhabitants, but at this time the pirates got safe off, taking with them nearly 400 of the miserable natives. Olaf Egilson, another clergyman, was released after two years' captivity; but most of the others pined away their lives amidst the scorching sands of Africa, in vain regret for the snowy mountains of their northern land. Accordingly, when, after the lapse of nine years, the Danish government, moved by their calamities, redeemed them from slavery, only thirty-seven were found to have survived, and even of these no more than thirteen ever returned to their long-wished-for homes.*

From about the period of the Reformation till this epoch, commerce was chiefly in the hands of the Ger-

* Hist. Eccles. Isl. tom. iii. p. 80-83. Olafsen's Reise, th. ii. p. 131.

mans or Hanseatic republics, especially the merchants of Hamburg and Bremen. But these having been accused of abusing their privilege, Christian IV. determined on remedying the evil; and to effect this purpose, he deprived them of their rights, and instituted a Danish company, by whom it was ostensibly monopolized till the middle of last century. They are said at first to have conducted the trade on better principles, but the inhabitants soon found that they had only changed their oppressors. The English fishermen who continued to frequent the coast, and from 1640 to the end of the century often wintered in the island, supplied the natives with many articles. The French and Spaniards, who went there for the whale-fishery so late as 1768, also acted in the same manner; and as all these nations frequently hired Icelanders to assist them in their operations, this clandestine commerce was much facilitated.*

It is a curious circumstance, that a superstitious belief in magic arts seemed to increase after the Reformation; a fact which may probably be accounted for on this ground, that formerly such pursuits being permitted, passed over without any notice, whereas now being visited with punishment, they made more noise, and hence the increase was more apparent than real. Another cause was the encouragement which the pretenders to these supernatural powers received from some of the authorities and more learned men on the island, who, by means of them, increased their influence over the minds of the common people. Certain of these persons encouraged the belief that they themselves were also possessed of similar arts, and not a few, even of the clergy, seem to have been deluded, and to have perished as victims of the law.† The time when this imaginary crime was visited with most severity was from 1660

* Olafsen's Reise, th. i. p. 198.

† Among the books in highest repute with this learned class of wizards, were the works of Cyprianus and Cornelius Agrippa, as also of Cardan, Wierus, and Albertus Magnus.

to 1690, in which thirty years, sixteen persons, mostly from the West Fiords, were burnt alive. At that time the authorities became more enlightened, and a law was passed, that no person accused of sorcery should be capitally punished by the Heimthing or native tribunals, all such cases being referred to the king. This proved the deathblow of witchcraft, which soon after disappeared from the land. The evil of these sanguinary statutes will be more apparent, when we consider that it seems almost certain, that more persons were legally murdered for this fictitious offence in those thirty years than have suffered for all other crimes in the one hundred and fifty years that have since elapsed.*

The eighteenth century was ushered in by a frightful pestilence, which swept off at least one-third of the entire population, proving particularly destructive among the most healthy and active. This was the smallpox, which raged with such virulence in 1707, that, according to the annals, the deaths in the whole island amounted to 18,000, and in Sneefield Syssel to 1500, or about as many as the whole inhabitants of the district forty years after, when its ravages were still visible in the many deserted farms and fishing-stations. In the middle of the century, the seasons were so inclement, that vast numbers of the cattle perished for want of food; and in a famine that followed, nearly 10,000 of the inhabitants died. The dreadful eruption of Skaptar Jökul, in 1783, which we have already noticed at considerable length, though its immediate locality was in the desert regions of the interior, spread destruction throughout the whole island. The smallpox also added once more its fatal influence, and in a few years 11,000 individuals fell victims to these combined attacks. The destruction of the fisheries on the southern coasts was an evil of a more lasting character, and one from which the country was long in recovering.†

* Olafsen's Reise, th. i. p. 254.
† Ibid. p. 185. Mackenzie's Travels, p. 64.

In the beginning of the present century, the last remnant of Icelandic independence was finally annihilated. The Althing, which for nearly nine hundred years had met at Thingvalla, was dissolved, and the supreme courts of judicatory transferred to Reikiavik. Though this change was probably on the whole advantageous, and the assembly had long ceased to possess any political importance, yet it is impossible to view the extinction of this ancient institution with indifference. It formed the last link which connected the present with the past, the only monument of national independence, the living memorial of the most important events in the people's history. All around was consecrated by the deeds of their ancestors, each rock, each stone, each pool of the dark river, had its story, and was associated with the names of the heroes and benefactors of the nation. Besides, whilst it continued, the national existence was preserved, and the self-respect of the people heightened. Though it had fallen into decay, and its powers were altogether dormant, still it was something that the form yet remained ready to be called into action should it ever be required.

In the year 1809 a London merchant, on the information of Jorgensen, a Danish prisoner of war, sent a ship to Iceland for the purpose of trading there, on board of which was the person just named. The laws of the island forbidding all intercourse with strangers, they were not permitted to land the cargo; but on their seizing a Danish brig, leave was granted, though still no person would buy their goods. On the arrival of the governor, Count Trampe, in June, and of a British sloop-of-war soon after, a convention was entered into, by which British subjects were allowed to trade, subject to the laws. Some delay having occurred before this agreement was published, the governor was taken prisoner by the captain of the English ship, and Jorgensen installed in his place. He soon proclaimed the independence of the island, hoisted a blue flag with three white stock-fish as the national arms, and travelling about the country with a body of natives whom he had armed, seized on all

public and private property. But the arrival of another sloop-of-war stripped him of his power, and he was sent to England along with the governor. The only advantage this event brought to Iceland, was an order in council, issued by the British government, on the 7th of February 1810, by which the inhabitants of Iceland, Faroe, and Greenland, were to be considered as stranger-friends, their property was exempted from all attack, and their ships were permitted to trade with the ports of London and Leith. This state of things continued to the close of the war in 1815, and in the following year the commerce was declared free to all nations.*

In concluding this account of Icelandic history, it is pleasing to reflect, that the condition of the country seems gradually improving. It can never hope to regain the high position it formerly held among the European nations, or to be completely delivered from those physical disasters which too frequently blight the fairest hopes of its children. But, at the same time, its literature may expect a due share of public attention; and increased intercourse with foreign states, and quicker methods of communication, will probably prevent famine from again sweeping off a fourth of its population by a lingering death. Whether the progress of science will ever enable its inhabitants to convert those mighty volcanic agents which now convulse the surface of their land, into instruments of human industry, may to many seem more than doubtful; but we may at least hope that it will teach them to obviate some of their most destructive effects. The former is, however, the opinion of a distinguished philosopher, with whose words, full of promise for the future, we shall conclude this chapter. "In Iceland, the sources of heat are still more plentiful; and their proximity to large masses of ice seems almost to point out the future destiny of that island. The ice of its glaciers may enable its inhabitants to liquefy the gases with the least expenditure of

* Mackenzie's Travels, p. 80, note. Hooker, vol. ii. p. 1-102.

mechanical force; and the heat of its volcanoes may supply the power necessary for their condensation. Thus, in a future age, *power* may become the staple commodity of the Icelanders, and of the inhabitants of other volcanic districts; and possibly the very process by which they will procure this article of exchange for the luxuries of happier climates, may in some measure tame the tremendous element which occasionally devastates their provinces."*

* Babbage on the Economy of Machinery and Manufactures (London, 1832, second edition), p. 384.

CHAPTER VI.

Character and Present Condition of the Icelanders.

Descent—Unity of Character—Appearance—Disposition—Hospitality—Piety—General Education—Employments in Winter—Reading Sagas—Amusements—Music—Fishing—Hay-harvest—Sheep-shearing—Journeys—Collecting the Iceland Moss—Food—Dress—Houses—Population—Births, Deaths, and Marriages—Diseases—Property—Agriculture—Commerce—Government and Law—Taxes—Ecclesiastical Establishment—Revenue of Clergy—Character—Education—School of Bessestad—Literary Habits—Present State of Literature—Theology—Classical Learning—Science—History—Poetry.

As appears from the foregoing history, the Icelanders are principally descended from Norwegian ancestors, intermixed with a few Danes, Swedes, and Britons. All these nations were, however, of common origin, and, at the period of colonization, closely allied in religion, language, and manners; so that this people may be considered as sprung from one simple stock, bearing the greatest resemblance to the present inhabitants of Norway. We have in former chapters noticed the peculiarities which distinguished the first colonists of this island,—their love of war and freedom, their adventurous spirit, their mingled superstition and scepticism, their eager pursuit of poetry and traditionary lore. We have also seen the changes produced by Christianity, mitigating the harsher features of their character, and the more melancholy changes which followed their subjection to a foreign power, always neglecting, too often injuring and

opposing, the true interests of the nation. How far these causes, and the influence of an unpropitious climate, have modified the national character, is the question we must now attempt to resolve in delineating the present habits and condition of this lonely people.

In most countries the effects of climate and political institutions are counteracted by intercourse with other nations, and by the variety of employments among the people themselves. But nothing of this kind happens in Iceland, the commerce of which has long been entirely in the hands of foreigners, and where the natives are all of one rank, and engaged in the same pursuits. The hereditary jurisdictions having been soon abolished, government offices or preferment in the church form the only distinctions in the country ; but the salaries attached to these appointments are seldom sufficient to raise their occupiers above the general rank of the people, and are in many cases inadequate to their support. Hence the same pursuits and modes of life have stamped on the inhabitants a greater unity of character than is to be found in almost any other land.

In personal appearance the Icelanders still retain many of the peculiar attributes of their Scandinavian ancestors, so well known

> "By the blue eye, tall form, proportion fair,
> The limbs athletic, and the long light hair."

It is the first and last of these qualities, however, that are now most frequently found, the Icelanders being in general of moderate size and a weakly constitution, the result of the poorness of their food and want of proper exercise when young. The head is moderately large, the countenance open, and the features, notwithstanding the rather projecting cheekbones, pleasing, especially in the fair sex. They have almost universally fine teeth and yellow flaxen hair. Corpulent individuals are seldom met with, though oftener amongst the women than the men. In Anundar Fiord, and some other parts of the western peninsula, the natives allow

their beards to grow, and also differ in other respects from their countrymen.*

The melancholy character of the climate and scenery, together with the remembrance of the faded glories of their country, has given a peculiar impress to the minds of the people. Dwelling in desolate places deprived of almost all vegetation, in dark miserable houses where the light of day can scarcely penetrate, amidst scorched rocks of rugged lava, or enclosed between the raging sea and the black cliffs, they become serious, quiet, humble, and little disposed to exert themselves, unless impelled by necessity. Influenced by these causes the Icelander of the present day closely resembles his native land, where the most destructive fires are concealed beneath its snow-clad rocks. Still and unmoved, they account it shameful to be betrayed into any violence, or to intermingle their conversation with those gestures so common in more southern countries. Whilst the most powerful passions are raging within their breasts they stand like statues, but once roused into action they prove that the blood of the Vikingr still flows in their veins. Firm, patient, and enduring, they occasionally remain on the water in their fishing-boats thirty-six hours without tasting food, it being a disgrace to take even a piece of bread along with them. The same character manifests itself in all their undertakings,—difficult to be set in motion, they persevere with the utmost energy, and never desist so long as there remains the smallest probability of success. Acute observers, they soon discover the difference between themselves and other nations, but exhibit no predilection for foreign customs; and, however violent enemies to each other, they constantly make common cause against any stranger. The unwearied industry with which they pursue their usual avocations forms a strong contrast with their opposition to all improvement; arising, not from want of ability to learn, but because their reverence

* Henderson, vol. i. Introd. p. xxxiii. Gliemann, p. 120.

for the past inspires them with distrust of all things not derived from their fathers.

As the present offers few objects of interest to the Icelanders, they more than any of the continental nations live in the past, and willingly lose the consciousness of their personal degradation in the glories of their ancestors. With little to excite or elevate, strangers are apt to regard them as of a sullen and melancholy disposition, though others with good opportunities for observation describe their "predominant character as that of unsuspecting frankness, pious contentment, and a steady liveliness of temperament, combined with a strength of intellect and acuteness of mind seldom to be met with in other parts of the world."* This difference of opinion probably arises from variety of temperament in the observers themselves; but all allow them the more solid qualities of fidelity, truthfulness, and an obliging hospitable disposition. For this last they are particularly distinguished, giving freely the little they possess, though thereby exposing themselves, especially in remote districts, to great inconvenience. That which in other lands is only praiseworthy becomes here a true virtue, requiring much self-denial to practise it. When these poor people give a visiter a glass of milk or a cup of coffee, they often deprive themselves of an essential article of food, or sacrifice in a moment that which they have amassed with great care for some family-festival. Dark and dreary though their country may seem, yet they love it with a fond affection and warmth of patriotism unknown in more favoured regions. Though they frequently travel to happier climes and obtain the means of remaining there in affluence, they seldom fail on the first opportunity to hasten to their native land, and home-sickness is as common among them as among the children of the rugged Alps.

Piety is a no less distinguishing feature in their character, the majestic scenery of this wild land forcing

* Henderson, vol. i. Introd. p. xxxiv.

home to the soul the littleness of man, his incompetency to struggle with the mightier powers of nature, and his dependence on some higher being. Hence those of their ancestors who rejected the cruel and absurd mythology of the Edda, did not fall into total unbelief, but turned to the worship of that god, unknown though his name might be, who created the sun: And the same spirit still animates their descendants, who, recognising the hand of Providence in all the occurrences of life, bear with resignation the numerous calamities to which they are exposed. The moral character of the people also stands very high, and vice is almost unknown except among the inhabitants of Reikiavik, who have been much corrupted by the manners of the Danes and other foreigners who frequent the harbour. Drunkenness, the besetting sin of cold climates, though less frequent since the war, still prevails to a great degree, even amongst those whose education ought to place them above this temptation.*

Although deprived of all those means of instruction which are thought so necessary in other countries, there are yet almost none of the Icelanders of the proper age who cannot read and write. Indeed, with the exception of a few superstitions encouraged by their physical circumstances, and but lately expelled from more civilized societies, the mental cultivation of the natives is very high. Education is all conducted at home, parents teaching their children as they themselves were taught before, and the clergyman visiting each family several times in the year, and examining into the progress they have made. The influence of this pastoral superintendence is much increased by the power intrusted to the bishop and inferior clergy, of preventing the marriage of any female who cannot read. The extent of information thus acquired, not only of the history of their own and connected nations, but even of classical times and oriental countries,

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* Henderson, vol. i. p. 96; vol. ii. pp. 94, 188. Hooker, vol. i. p. 119. Mackenzie, p. 269. Marmier, Lettres sur l'Islande, pp. 12, 13.

is very remarkable. An instance of this occurred to Dr Henderson, who, mentioning the date of a letter from the King of Persia as in 1229, a little boy remarked, that it must be very old; when a peasant corrected him by saying, that it was not dated from our era, but from that of the Hegira.*

The inhospitable climate influences every thing connected with the moral and physical life of the natives. The changes of the seasons alone bring variety to the Icelander, and nowhere is this change more sudden or complete. Summer and winter, for spring and autumn are unknown, have each their appropriate occupations as diverse as the periods of the year. In winter they generally rise about six or seven in the morning, when the employments of the day begin, the family and servants equally engaging in the preparation of food and clothing. Some of the men look after the cattle, feeding those which are kept in the house, others spin ropes of wool or horse-hair, or are employed in the smithy making horse-shoes and other articles, whilst the boys remove the snow from the pastures for the sheep, which are turned out during the day to shift for themselves. The females make ready the several meals, ply the spindle and distaff, knit stockings and mittens, and occasionally embroider bedcovers and cushions. When evening comes on, the whole family are collected into one room, which is at once bedchamber and parlour, and the lamp being lighted, they take their seats with their work in their hands. Men and women are now similarly engaged in knitting or weaving, or in preparing hides for shoes or fishing-dresses. While they are thus occupied, one of their number, selected for the evening, places himself near the lamp, and reads aloud, generally in a singing monotonous voice, some old saga or history. As the reading proceeds, the master of the house or some of the more intelligent of the circle pass remarks on the more striking incidents of the story, or try the ingenuity of

* Henderson, vol. ii. p. 222. Mackenzie, p. 292.

the children by questions. Printed books being scarce, there are many itinerating historians who gain a livelihood by wandering, like the bards of old, from house to house, and reciting their traditionary lore. For the same reason, the custom of lending books is very prevalent; the exchanges being usually made at church, where, even in the most inclement season, a few always contrive to be present. The most interesting works thus obtained are not unfrequently copied by those into whose hands they fall, most of the Icelanders writing in a correct and beautiful manner. It is much to be regretted, that a people so devoted to learning, and to whose ancestors the history of the north is under so many obligations, should be so ill supplied with the means of attaining useful information.

The natives have few amusements, and those chiefly of a quiet and meditative nature. Chess, of which they seem to have various kinds, and a game resembling draughts, are the favourites, to which they sometimes add cards. In former times, music appears to have been cultivated with some success; but their poverty has repressed this taste, and many of their old instruments are known only as objects of antiquity. They now show neither genius nor love for this science; resembling in this respect the Egyptians, and probably on similar grounds, life and death meeting in close conjunction around them.*

Summer brings with it a wider range of employments. Even before the winter is over, when the pale sun can scarcely penetrate the mid-day gloom, the inhabitants of the north and of the interior are seen hastening to the southern and western shores, which are then alone free from ice, to reap the rich harvest Providence has reserved for them in the stormy waters. The ver-tima, or fishing season, continues from the 3d February to the 12th of May, and must be assiduously employed in order

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* Mackenzie, pp. 276, 469. Henderson, vol. i. p. 364-368. Hooker, vol. i. p. 283.

to provide a winter store. To prevent, as much as possible, the bad effects of cold and damp, each fisher has a dress of leather, rubbed over with train oil till it is almost impervious to water. Their boats are commonly small, with one to four men in each, though larger ones with sails, containing eight or nine, are sometimes used, particularly on the western coast. The fish are mostly caught with lines and hooks, baited with shell-fish or pieces of flesh. When the adventurers leave the shore, it is customary for them to take off their hats, and offer up a petition for good success, recommending themselves to the Divine protection in a prayer or hymn. They then row to the places frequented by the fish, and continue angling the whole day. On their return the produce is equally divided, the owner of the boat getting one share whether he has been at sea with them or not. The fish are then cut up, the backbone taken out, and in fine weather they are spread out on the shore to dry, but in rain placed in heaps with the skin uppermost, in which state they are often spoiled, and must be sold at an inferior price. The drying process requires a fortnight or more before it is completed, and is sometimes carried on in long open sheds. The heads are also cut off, dried, and either used by the fishermen themselves, or sold in the country. No part is wasted, oil being extracted from the livers, and the bones used for fuel, or boiled till they are soft, and given to the cows for food.

The fish most in esteem is the cod, especially the variety known as the dorsch (*Gadus callarias*), which, though smaller, is reckoned superior to that taken on our coasts. The ling, torsk, haddock, and other species, included by Linnæus in this genus, are also commonly caught, together with soles, flounders, herring, and salmon, though the latter are more frequently sought for in the rivers. The Icelanders used also, in their more prosperous days, to pursue the whale, the monarch of the deep; but that majestic animal has been almost entirely chased from their shores, and is now regarded by the natives,

unable to contend with it in their small boats, rather with terror than as a welcome prize.*

The preparation of turf for fuel is another of the summer occupations of the males, who then devolve the care of the cattle on the women. No sooner is the ground thawed than they begin to cut it, and place it in small heaps for protection from the rain.† But about the middle of July, the busiest period of the Icelandic summer begins, and the tide of population flows from the coast to the interior. The grass has then attained its full growth, and the hay harvest commences, on the success of which the support of the cows and consequent comfort of the natives so much depend. The men mow it with a short scythe about two feet long and two inches broad, whilst the females turn it to dry, and collect it into little heaps. When ready, it is made up into bundles and carried home, either by men or on horses, one being slung on each side. It is by these horse-loads, named kapalls, that hay is usually sold, though when old and well pressed together, this is also done by measure. The hay from the enclosed ground, named tada, is scrupulously preserved for the cows, whilst the coarser, tand, gathered from the fens and marshes, is sometimes, in severe storms, given to the sheep. Not only are the peasants themselves employed in this labour, but they also hire persons from the fishing-stations on the coast, many of whom take long journeys for this purpose. They cut by measurement a day's work, or dagslatta, being an even piece of land containing thirty square fathoms, and are paid at the rate of thirty pounds of butter per week. These are not arbitrary quantities, for the amount of

* Olafsen's Reise, th. i. p. 180-185. Horrebow's Nat. Hist. chap. lv. lvi. &c. Von Troil's Letters, p. 124-129. Marmier, p. 16.

† The first who used this material for fuel is said to have been Einar, a jarl of Orkney, and brother of the famed Rolf or Rollo of Normandy. He lived in the time of Harold Haarfager, and, on account of his discovery, was commonly called Torffeinar.—Crymogea, p. 50.

labour and the recompense for it have been fixed in almost all cases by particular laws, which, as must ever happen in such circumstances, are often disregarded.*

This harvest being over, the farmers employ themselves in collecting the sheep that, during the summer, have been wandering wild on the mountains, bringing them home, and killing those needed for the winter. The Icelanders do not shear this animal, as in other countries, but either pull the wool off when it begins to get loose, or allow it to fall spontaneously. The reason for this, according to Olafsen, is, that in cutting the wool they would also remove the long coarse hair, which is considered the principal protection from the rain, and would thus be obliged to keep them shut up during the cold season. At this time they also repair their houses for the ensuing winter, and build new ones, bring home wood or the turf formerly prepared, and carry out and spread the manure on the enclosed pastures as soon as the grass begins to wither.†

Besides these, which we may consider as the regular employments of the people, there are others peculiar to some classes or parts of the country. The whole nation is much inclined to travelling, which both men and women perform on horseback; but there are some journeys that may be almost considered as a necessary part of their occupation. Such are those to the fishing-stations in the spring, whence they return in the beginning of May; and to the trading town to exchange their home-produce for various foreign luxuries or necessaries. This last happens about the middle of June, and the various articles are placed on the backs of horses, protected by a packsaddle of turf. When the journey is long, they generally have some spare animals in their train, and the whole are tied together in a line, the head of the one being fastened to the tail of another. This mode of travelling has quite an oriental appearance, and one might almost fancy himself in the midst of an Ara-

* Henderson, vol. i. pp. 363, 364. Olafsen, th. i. p. 16-18.
† Olafsen, th. i. pp. 18, 107. Henderson, vol. ii. p. 157.

bian caravan, especially when crossing the sandy deserts of the interior. As there are no inns, they carry tents and provisions along with them, and there are usually places of rest, where the cavalcade, often containing sixty or seventy horses, stops for the night. These are frequently in the midst of the wide heaths, marked out by a heap of stones or cairn, whose magnitude every traveller considers it his duty to increase. Such mounds, in some cases, attain a great altitude, as that on Smiorvatns Heide, near the Vapna Fiord, and one called Beinakjelling in Kaldedal, in the district of Borgar Fiord.*

As there is almost no money in the island, the exchange of the articles is usually effected by barter, which is also preferred by the Danish traders. The Icelander, on his arrival in the vicinity of the town, pitches his tent, and leaving his horses and goods, proceeds thither alone, visiting all the merchants, and inspecting their wares. It is only after having gone through the whole, that the cautious native completes his bargain, in which he is nevertheless but too often cheated; the merchants taking care that there shall be no scarcity of brandy, a small quantity of which soon dispels the timid prudence of the poor fisher. In these moments of excitement, the produce of the winter's labour, that was to provide necessary comforts for a whole year, is too frequently squandered. But even when intoxicated, the native goodness of their heart displays itself; there is no fighting or quarrelling, no noise or tumult, but catching each other by the hand, they embrace with the greatest affection.

The gathering of the Iceland moss (*Cetraria islandica*) is an employment for the females during two or three weeks in the middle of summer, when the other sex are fishing in the fresh waters, or absent on their trading journeys. The natives distinguish several kinds of this plant, to which they give different names, but the best is of a bright brown colour, and grows most abundantly in stony places where there is no grass. To collect it, one

* Gliemann, p. 131. Henderson, vol. ii. p. 158.

or two women from each farm go every year into the desert parts of the island, twenty or thirty miles from the inhabited districts. They take with them horses, tents, and food, and unite into large parties, having along with them two or three men to protect them from the robbers, who are believed to frequent those parts of the country. They move about from place to place, pitching their tents wherever the moss is abundant, until their horses are loaded with this nutritious lichen; and as it becomes rough and hard in dry weather, they prefer gathering it in moist days, or during the clear nights of the northern summer. The period spent wandering in this manner through those romantic districts is the happiest in the life of the Icelander, and is looked forward to with high expectation. Companies from distant parts of the land often meet in such excursions, when each have their tale to tell of the occurrences of the last winter,—of the snow-storm or tempest,—of dangers by flood or fell,—things trivial in themselves, but composing the history of this simple people.*

The produce of a country, especially when poor, must ever form the chief support of its inhabitants, and determine the nature of their food. This is particularly the case in Iceland, where the sea and the meadows provide for all the wants of the people, and are almost the only source of wealth. Fish, fresh or salted, and the flesh or milk of their flocks and herds, are the staple articles of their diet, to which is occasionally added a few vegetables, or meal imported from abroad. The gardens in the island are small, and contain only the more hardy plants, as cabbage, white and yellow turnips, potatoes, and a little salad; but with the exception of the ministers and sysselmen, these luxuries are only possessed by the inhabitants of the seaports. The wild plants that can be used for sustaining life are not numerous, and only a small part of the food of the natives consists of vegetables. Milk is prepared in various ways: in

* Olafsen's Reise, th. i. p. 85.

a sour or curdled state, and mixed with water, it is their common drink, and is called syre; whilst thick milk or skier is their principal food. They use butter in immense quantities, and prefer it unsalted and very old, when it has a sour taste, and will keep for any length of time without becoming worse. When this fails, they supply its place with tallow, but seldom make cheese, and what little they do produce is very inferior. The trading ships supply them with meal, wine, beer, and other articles, amongst which coffee, and tobacco in the shape of snuff, are the principal luxuries.

The dress of the Icelandic peasant resembles that of a common sailor, being a short jacket of blue, gray, or black home-made cloth, wide trousers of the same material, woollen stockings, and shoes or short boots of untanned leather, without heels, and laced in front. The higher classes are clothed as in other lands, and even the common people, when going on a long journey or to the church, approach nearer the fashion. The raiment of the females is more peculiar, and highly ornamented, though almost all formed of the wadmal or common cloth of the country. It consists of a red or black bodice, with stripes of velvet covering the seams, and fastened in front with five or six silver clasps; round the neck is a ruff of velvet, adorned in a similar manner; above is the treya or jacket of black cloth, with silver buttons, and, above all, is the hempa, a black cloak lined with velvet, and fastened with clasps. The stockings are dark blue or red, and the shoes somewhat similar to those of the men. The head-dress is a fantastic turban of white linen stiffened with pins, and generally from fifteen to twenty inches high. It is round near the head, but soon becomes flat, and curves first backwards and then forwards. It is fastened by a black or coloured handkerchief bound round it several times; and on bridal or other high occasions, is also adorned with gold and silver. By the quantity of these precious metals on the dress, a judgment may be formed of the wealth and station of the proprietor, the silver on that of

a lady of rank being frequently worth 400 dollars. But with all this external magnificence, linen is almost unknown, the under-clothing of both sexes being chiefly flannel or wadmal, to which many of the diseases prevalent in the country are ascribed.*

The present houses of the Icelanders differ little from those used by their ancestors, who first colonized the island; and though not according to our ideas of beauty or comfort, are probably the best fitted for the climate. They never exceed one story in height, and as each room is in some measure separate from the others, the buildings on a moderate-sized farm bear some resemblance to a village. The walls are occasionally composed of driftwood, but oftener of stone or lava, having the interstices stuffed with moss or earth, and are about four feet high, by six in thickness. Instead of the usual rafters, the roof often consists of whale-ribs, which are more durable, covered with brushwood and turf, producing good grass, which is carefully cut at the proper season. From the door a long passage extends to the badstofa or principal room, the common sitting, eating, and sleeping apartment of the family. From the sides of the lobby, doors lead to other rooms used by the servants, or for kitchen and dairy. In the better class of houses, the walls of the principal chamber are wainscoted, and the windows glazed: but these luxuries are unknown in most, and the holes in the roof that admit the light are covered by a hoop, with the amnion of a sheep, or a piece of thin skin stretched over it. They have no chimneys or grate, the smoke escaping by a hole in the roof; and there is no fire even in the coldest weather, except in the kitchen. The beds are merely open frames filled with seaweed, feathers, or down, over which is thrown two or three folds of wadmal, and a coverlet of divers colours. From the roof hang various articles of domestic economy; the floor is generally nothing more than the damp earth; and the only seats are the bones of a whale or a horse's skull.

* Gliemann, p. 127. Henderson, vol. i. p. 124-126.

To a stranger, however, the filth and smell are the most disagreeable accompaniments of an Icelandic habitation, and contribute not a little to the unhealthiness of the inmates. It is but seldom that the traveller meets a dwelling a little larger, more airy and better built, belonging to some rich peasant, who tries to combine convenience and neatness with the solid structures of his ancestors.*

The houses are usually surrounded by several others for the cows, horses, and fuel, though these frequently open from the common lobby; and also by numerous ricks of hay covered with turf and stones, which closely resemble the former, and increase the apparent extent of the buildings. In the neighbourhood we also commonly find several plots of ground, enclosed with earthen walls, for producing hay, and named tuun by the natives, on the fertility of which the goodness of the farm and the prosperity of its tenant depend.†

In the first chapter we mentioned that the interior of the country is entirely uninhabited, the population being chiefly confined to the vicinity of the coasts and fiords. Of the thirty-eight thousand square miles of which the island consists, only a ninth part is inhabited, and even over this the houses are very widely scattered, with many bleak and dreary intervals, so that man and his dwellings seem like something foreign to the land. The hamlets are always so inconsiderable that they never become the principal object in the landscape, and even the commercial towns seem lost amid the rocky defiles in which they are placed. Assuming the population at 50,000, which it has rarely exceeded, the average will be about 1¼ to the square mile, and if we exclude the central deserts, rather more than seven, that is, about a third of the number found in the thinnest inhabited of our Highland counties.

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* Olafsen's Reise, th. i. p. 173. Von Troil, pp. 99, 100. Henderson, vol. i. p. 75. Marmier, p. 15.

† Ghemann, p. 127.

Although it has frequently been affirmed, we have no reason to believe that the inhabitants of the island ever much exceeded their present numbers. Though during the last two centuries famine and pestilence have frequently desolated the land, yet the population soon recovered, and no age seems to have been exempt from similar misfortunes. Some districts have undoubtedly been rendered uninhabitable by the encroachments of the jökuls and the accumulation of lava or volcanic sand, but these are comparatively of little moment, as the people are more dependent on the water than the land for food, and have probably been compensated by the increase of foreign commerce. No authentic monuments remain by which this question can be decided; the only ancient enumeration of the people being that made by Bishop Gyssur of Skalholt in 1090, which gives the number of farmers at 4000, omitting all the poorer classes. The round numbers of this calculation seem unfavourable to the idea of an actual enumeration, but reckoning eight to a family, which is the present average, it amounts to 32,000, to which when we add those omitted as not paying tribute, the whole would approach the largest census of our own day. The certain information commences with 1703, when it amounted to 50,444; but four years afterwards, nearly 18,000 persons having perished by the small-pox, it was reduced to 34,000. In 1750 it had again risen to 50,700, falling in 1769 to 46,201, and increasing in 1778 to 50,212, from which time it continued decreasing till the beginning of this century, being 47,287 in 1783, 47,207 in 1801, and 46,349 in 1804. From that time it appears to have increased, being 48,063 in 1808, 48,551 in 1821, 49,269 in 1823, and, in February 1834, 56,034. The lists of 1801 are those which enter into the fullest details, and present the following results:—Of the population 21,476 were males and 25,731 females, or in the proportion of thirteen to fifteen. The average marriages in ten years were 250, or one in 188 of the population, the births 1350, or one in thirty-five, and the deaths

1250, or one in thirty-seven, leaving an excess of one hundred births. The births were to the marriages as twenty-seven to five, or rather more than five children to each family, whilst they were to the deaths as twenty-seven to twenty-five. Of the children born, a hundred and fifty, or one in nine, were illegitimate, forty-five, or one in thirty, still-born, and thirty, or fifteen pairs, were twins.

In 1821, the population, according to Stephensen, amounted to 48,551, an increase of 1344 in twenty years. The births were 1464 and the deaths 1629, exceeding the former by 165. In that year 329 couples were married, sixty children, or one in about twenty-five, were still-born, and 199, or one in seven, illegitimate, which was less than the former or succeeding years, when it was one in six. In 1822 the deaths were 841 and the births 1724, being an increase of 883.*

According to Barrow, whose statements chiefly refer to 1832, the population in that year was 53,000, and the deaths 1390, or one in thirty-eight, of which 859 were under ten years of age, or nearly six-tenths of the whole; the births were 2516, or 1126 more than the deaths, and of these seventy-five were still-born, and 383, or one in seven, illegitimate. The families amount to four, six, or sometimes more, and the men usually marry at from twenty-four to thirty-two years of age, the females from nineteen to thirty.†

The frequent vicissitudes in the Icelandic population arise from the small number of the people, and from their being all exposed to the effects of the same accidents by the uniformity of their employments and mode of subsistence. The circumstances which exercise an unfavourable influence on one part of the inhabitants extend to all alike; and the injury sus-

* Hassel's Erdbeschreibung, vol. x. p. 229. Gliemann, pp. 122, 123. Islandische Zeitung, Nos. 7 and 8.

† Barrow's Visit to Iceland, p. 284-287.

tained by one class of the community, from deficiency in their fisheries or flocks, is shared by every other. In 1801 more than a fourth of the population were under ten years of age, and we have seen from the statements just given that a large proportion of the deaths happen at this period of life. The celebrated physician Callisen ascribes this mortality to the unnatural conduct of the mothers, who of late have given their infants to nurses who bring them up on cow's milk. After passing this period the Icelanders in general, especially the females, attain a tolerably old age. About a fifth of the population reach fifty years of age, a ninth sixty, and rather more than one in a hundred eighty, whilst only one in 1154 exceeds ninety years of age. The most prevalent disease is asthma, which is said to prove fatal to every twenty-fifth person; whilst about the same proportion are cut off by violent accidents, most of these being drowned when fishing, while others are frozen to death or lost in snow-storms. Catarrhs and nervous or inflammatory fevers, which often become epidemic, are also very fatal. Scorbutic and other affections of the skin are, as might be expected from the food and habits of the people, extremely common. Leprosy is also known, especially in that most horrible form of which the character is best expressed by its name of likthra, meaning a putrefying corpse. Some authors say that it was brought to Iceland by the Crusaders, but it seems to differ from that described in the Bible, and also from the species met with in Greenland. It has with much probability been ascribed to the use of half-putrid fish, an opinion which is confirmed by its disappearance from Faroe, where it was formerly frequent, since the inhabitants applied themselves more to agriculture. Besides the usual diseases of children is one called ginklofe (*tetanus* or *trihmus neofanorum*), which destroys every infant born in the Westmanna Islands. Another complaint peculiar to a particular place is a kind of dropsy ending in scurvy, which attacks

all new settlers in Grimsey, and proves fatal unless they are removed immediately to the mainland.*

As already mentioned, the people are principally engaged in the fisheries or the feeding of cattle, and most of them alternately in both, so that it is impossible to ascertain the numbers supported by either exclusively. In 1804, there were 208 boats, with eight or ten rowers to each, 1068 with four to six rowers, and 887 of a smaller size, employed in the fishery. Along with this the natives of the coast hunt seals for their skins and oil, and in some places catch the seafowl that crowd the cliffs and rocky islets on the shore. The latter principally happens at the time when the birds are breeding, during which many live almost exclusively on their flesh and eggs, whilst their feathers are chiefly exported. Agriculture cannot be said to exist, and there are only about three hundred gardens in the whole island. The land, including what belongs to the king and the church, was, in 1695, divided into 4059 farms, of which 718 were the property of the crown, 1474 of the clergy, 1847 were in the possession of private persons, whilst 20 were appropriated to the support of charitable institutions. Since then, the number of farms has increased to about 6000, and several of those formerly belonging to the sovereign or the clergy have been alienated to private individuals. At the death of a father, the property is generally divided among all his children, though the land is often retained by one, who pays the portions of the others. The common size of the farms is what is called twenty hundreds, worth from three to four hundred dollars, and calculated to feed about six cows, eight horses, and eighty sheep. The peasants are in general either proprietors or pay a rent in kind, according to an old valuation; and tenants are never removed unless where they are justly chargeable with neglect. Many

* Callisen's Physisk Med. Beskriv. vol. ii. p. 237. Gliemann, pp. 21, 23, 124. Barrow, p. 294. In 1822, ninety-six children died of the *angina polyposa* alone.

of the farmers hire servants, whose wages vary from ten to twelve dollars annually, with their food, and they are usually treated like the rest of the family. In 1783, the live stock on the island was 36,408 horses, 21,457 horned cattle, and 232,731 sheep; in 1804 it had decreased to 26,524 horses, 20,325 horned cattle, and 218,818 sheep; whilst in 1832, according to the statements of Mr Barrow, there were above 50,000 horses, nearly 40,000 cattle, and 500,000 sheep.*

Properly speaking, there are neither trades nor manufactures in the country, every thing being prepared at home. There the cloth, or wadmal, as it is called, is spun, woven, dyed, and fulled by the people themselves, the last process being at once curious and original. Both ends being knocked out of a barrel, it is filled with the cloth or other articles, and turned over on its side; when two men then lying down on their backs, literally *walk* them by kicking against each other. Every farmer is his own carpenter and smith, though it not unfrequently happens that the clergyman, by his superior skill, monopolizes the trade of shoeing horses. Some of the peasants display considerable neatness and ingenuity in manufacturing small articles of jewellery, which are purchased by the wives of the more affluent inhabitants. In the West Fiords, many of the natives employ their leisure hours in cutting the drift-wood into various utensils, which are distributed over the whole land. Knitting stockings and mittens, or gloves without fingers, is the common occupation of the women, and besides what are used at home, several thousand pairs of each are exported annually.

From the beginning of the seventeenth century down to 1776 the commerce of Iceland was monopolized by a Danish company, who, as might be expected, grievously oppressed the natives. In consequence of this they were deprived of their privilege, and during the next ten years

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* Von Troil, p. 40. Hassel, vol. x. p. 225. Barrow, pp. 280, 281, 283, 291.

it was conducted in the name of the king himself, on a fund of four millions of rix-dollars. In 1787, it was permitted to all Danish subjects to trade with Iceland; and in 1816 the same liberty was also conferred on foreigners, who were only required to procure a license. Many arrangements favourable to the inhabitants have of late been introduced, such as the establishment of annual fairs, posts, and packet-boats. The island is divided into four commercial districts,—Reikiavik, Eske Fiord, Eya Fiord, and Isa Fiörd,—but the merchant-ships arriving in one are not allowed to go to another. The trade is mostly carried on by the Danes, though a few British and Norwegian vessels sometimes pay them a visit. In 1791, there entered from Copenhagen and other Danish ports about sixty sail, amounting to 2289½ tons burden, but during the war this trade was almost annihilated, and the natives, notwithstanding the generous forbearance of the British government, were reduced to great straits. In 1809, not more than ten ships arrived, but since that period commerce has again revived, and now, on an average, about fifty vessels, of from 100 to 150 tons burden, repair thither in the course of the season.*

The principal articles exported by the Icelanders have always been the produce of their flocks and waters, the unfruitful soil and severe climate not being compensated, as in Scandinavia, by any mineral treasures. Salted fish of various kinds, shark and cod oil, tallow, wool and woollen goods, sheep-skins, and eider-down, are the chief commodities. The imports, on the other hand, are rye and rye-meal, pease, barley, salt, brandy, iron, tar, and small quantities of colonial produce, with fishing-lines and cables. We have not seen any recent tables of the exports and imports of the island, but the following are interesting, as showing the gradual progress of the nation in industry and comfort:—

* Hassel, vol. x. p. 226. Mackenzie, p. 334-339.

IMPORTS.

Articles imported in the Years		1630.	1743.	1779.	1806.
Rye and Rye-meal	barrels	4,501	8,038	10,665	,646
Pease . .	do.	17	52	132	,079
Pearl-barley .	do.	83	135	367	,027½
Brandy . .	do.	262	748¼	1,196¾	,007¾
Wine	pipes	13¾	57½	71	43¾
Salt . . .	barrels	834	1,864	2,954	,378
Iron . .	skippunds	781	272	310	200
Tar . .	barrels	61	147	291	319
Fishing-lines .	pieces	31,412	..	12,890	,471
Tobacco . .	skippunds		20	256	238
Sugar . .	do.			27	48¾
Coffee .	do.			10¼	27

Articles exported in the Years		1630.	1743.	1779.	1806.
Fish . .	skippunds	207	392	3,612	2,001
Stock-fish .	do.	2,823	5,380	4,901	234
Salted cod in .	barrels	142	658	1,905	150
Cod-oil .	do.	1,445¼	471	1,402	807½
Tallow . .	skippunds	(133¾ bar.)	475	609	599
Wool . .	do.	..	265	23	813½
Frocks or jackets .		..	1,211	884	6,282
Stockings .	pairs	..	..	..	181,6[illegible]6
Mittens . .	do.	13,004	110,507	186,624	283,076
Wadmal .	ells	4,042	876	521	(11 pieces)
Lamb-skins . .		..	..	20,722	7,427
Sheep-skins, salted .		..	..	..	32,803
Eider-down	skippunds	..	..	6	6¾

The returns for 1806, it must be recollected, are more unfavourable to the country than they ought to be, as commerce was then extremely depressed, owing to the war on the continent, which prevented the regular arrival of ships from Denmark, and produced many privations among the inhabitants.

Iceland forms a province of the Danish kingdom, although it is not considered as a part of it, but rather as an allied state. The king rules over it with complete sovereignty, the last remnant of the popular power shown in the annual assemblies at Thingvalla having, as formerly stated, been abolished in 1800. At the head of the civil administration is the governor or stiftsamtmann, sometimes a native of the island, though oftener a Dane, who conducts all public affairs, presides in the supreme court of justice, watches over the execution of the laws,

the collecting and expenditure of the public revenue, and along with the bishop directs the school and appoints the clergy. He continues in office five years, with a salary of about £300 per annum, and is entitled to promotion on his return to Denmark. Under him are the amtmen, of whom there ought to be four, but as the governor holds this office in the southern province, and the northern and eastern are united, there are only two others. These have the superintendence of the inferior officers, and nearly the same duties in their province as the governor exercises in relation to the whole island. Subordinate to them are the sysselmen or sheriffs, nineteen in number, who are empowered to hold courts, appoint justices of the peace and notaries, and to administer the laws concerning inheritances. They are chosen by the crown from among the principal proprietors in the district. Under these are the hreppstiorar or bailiffs, who assist the sheriff in preserving the peace and public order, and have at the same time the charge of the poor.

All causes, civil and criminal, come in the first instance before the sysselman in the Heradsthing; one of which is held regularly once in twelve months, though extraordinary sessions are also called. This court consists of the sheriff as judge, with four assistants, named meddomsmen. The landfoged or steward, who is receiver-general of the island and police-master of Reikiavik, holds a similar court in that town. From their decision there is an appeal to the highest tribunal, instituted in 1800, on the suppression of the Althing, and which consists of the governor as president, who takes no part in the proceedings, a chief-justice, two assessors, a secretary, and two public pleaders. Cases are here decided according to the native laws, or Jonsbok, introduced in 1280, and the later royal ordinances; and from their judgment the last appeal lies to the supreme court of Copenhagen. The high moral character of the people renders the last court nearly a sinecure, not more than six or eight cases, public or private, occurring annually.

The crimes are mostly sheep-stealing and small thefts, and the only punishments inflicted in the country are whipping or fines. Those condemned to hard labour are sent to Copenhagen; and a peasant, being capitally convicted many years ago of murdering his wife, it was found necessary to carry him to Norway for execution.

The taxes collected in the island being very inconsiderable, impose little burthen on the inhabitants. They are principally levied on property according to several old customs; and payment is chiefly made in produce of various kinds, which is converted into money by the sysselman, and transmitted, after deducting a third for his own salary, to the landfoged or treasurer. The whole amount does not exceed 60,000 rix-dollars. and does not even suffice for the support of the civil government of the island.*

In the historical chapters we have mentioned the principal events connected with the religious state of the country in former times. Christianity, we have seen, was introduced in the year 1000, and though combined with the superstitions of the age, had a very beneficial influence on the manners of the people. Catholicism was suppressed after a rule of 500 years, and the Lutheran church has since that period been the established form. The inferior divisions of parishes appear not to have been altered from the earliest periods; but the bishops' sees, of which there were formerly two, were united in 1801, partly at the recommendation of some of the natives, and partly for economy, and to promote unity in the ecclesiastical government. The whole island was then placed under one, whose residence is usually at Reikiavik, though the present bishop has his house at Langanes. Besides the usual episcopal duties, he, in conjunction with the governor, fills up almost all the vacant parishes, the distance preventing application from

* Hassel, vol. x. p. 231-233. Mackenzie, p. 312-323. Henderson, vol. i. p. xxvi. Barrow, pp. 293, 305.

being made to the government at Copenhagen. Only six of the best are reserved for the royal presentation, in the others, the bishop names them first, and this is confirmed by the governor, who, being a foreigner, usually trusts entirely to his recommendation. Under him are nineteen provosts or deans, whose duty it is, as their superior cannot visit more than half the island in a summer, to send him an account of their districts, and take charge of the moral and religious character of the theological students residing in them. The parish ministers perform divine service according to a ritual, which is a translation of the Danish liturgy, and as many of them have two churches, preach in them on alternate Sundays. The number of parochial clergy is 184, but several of them have ordained assistants, which raises the total amount to 216. These have to supply 305 churches, and a population of 50,000, scattered over 4000 or 5000 square miles. There are thus 27 square miles, and 272 inhabitants to each parish, 231 individuals to each clergyman, and 164 to each church. The bishop is the only one of the clergy paid in money, the remainder being supported by the produce of their glebes, by tithes rated according to a fixed valuation, and church offerings from their parishioners; all of which, in many cases, do not secure them an income equal to that of a common peasant. According to Dr Holland, the whole revenue of the clergy, exclusive of the bishop, is only 6400 specie dollars, or less than thirty-five (about £6) to each parish.

The character of the priesthood is marked by all the national lineaments, few of them having ever left the island. They are only distinguished from the body of the people by superior information, which, however, is less the case there than in other countries, many of the peasants having obtained the same education with their ministers, and all making some pretensions to learning. The Icelander pays little deference to his pastor on account of his office, and unless his personal character secures respect, he is soon treated like a common peasant, in whose labours he is often compelled to join. Unable

to subsist on his wretched income, the priest must toil for his food like the poorest inhabitant of his parish, cultivating his farm, shoeing horses, or fishing. Six days of the week he is a farmer or mechanic, and it is only on the Sabbath that he can appear in his proper character. In consequence of this manner of life, he soon unfortunately becomes assimilated to those who form his constant associates. To this we must add, that the clergy, according to the fashion of the country, not only live the whole year in rooms without fires, but must oftener than others undertake long journeys, during which, in winter, their lives are frequently endangered in crossing the half-frozen rivers amidst ice and snow. On these occasions, the only refreshment they can carry with them is brandy, and nothing else is ever offered them on entering a house. From this arises the vice of drunkenness, which is said to be so frequent amongst them, that in recommending one to the bishop or governor, sobriety is thought the highest character. Many are habitually intoxicated, even when performing public worship, and few scruple to exceed the bounds of temperance when visiting the towns or at festivities. Yet such is the strangely mingled character of the people, that even the worst of these seldom fail to perform their duties with becoming earnestness and solemnity.*

The education of the clergy differs little from that of the other inhabitants, the elementary portion being

* This unfavourable character of the Icelandic clergy is given by an author who, having visited the island, and from inquiries among the students who frequent the University of Copenhagen, ought to have had the best opportunities of knowing the truth. As, however, only 1000 barrels of brandy are imported annually, which is about two bottles to each individual, it is to be hoped that the picture is at most only partially correct. This author heard that one of the deans being offered a glass of wine by the governor, refused it, saying that he drank nothing but brandy. Rheinwald's Repertorium fur die theol. Lit. und kirchliche Statistik (Berlin, 1833), vol. i. p. 190. Marmier however (Lettre ii. p. 51) gives the same view, both as to causes and effects.

conducted at home, and the course generally completed either by private study or at the school of Bessestad. This, now the only one in the country, was formed by the union of the two established at Skalholt and Holum by the first incumbents of these sees. At the Reformation, it was proposed to found one for every monastery that was suppressed, but this patriotic intention was not carried into effect, and the two already mentioned continued the only ones. These, being considered as theological seminaries, were under the especial charge of the bishops, the poorest scholars being wholly, the others partially, supported from the funds attached to the churches. After the union of the bishoprics, the schools were also conjoined and transferred to Reikiavik, where it continued from 1802 to 1806. At this time the scholars, instead of being supported as formerly, received money, and were required to board themselves among the inhabitants of the town. But this not having the best effects on their morals, the institution was removed to the present place, where there is a large stone building for lodgings, and a wooden one for school-rooms. The students, mostly peasants' sons, are from forty to fifty in number, and reside there eight months every year, going home from the beginning of May to the end of September to assist in the rural labours. They are generally sixteen years old when they enter the school, and on the completion of the course return to their parents. The teachers consist of a rector and three assistants, and the instruction given comprises theology, Latin, Greek, Hebrew, Icelandic, Danish, history, geography, and mathematics. The importance of this institution is shown by the fact, that in it all the civil and religious authorities obtain their whole education, with the exception of the few who, after completing their professional studies in private, are admitted as preachers by the bishop and rector of the school, and a few others who travel to the university of Copenhagen. Though during their four years' course in the capital they have free lodging and a

larger allowance of money than other students, yet few avail themselves of this privilege. Seldom more than four, and in some years none, leave their native land in pursuit of instruction, and these find their foreign accent and peculiar appearance much in the way of turning their information to account.

To the establishment at Bessestad there is attached a library, consisting principally of theological works in the Danish and German languages. There are besides a great number of Icelandic books, a few English and French, with some good editions of the classics; in all about 1500 volumes.

On leaving this institution, the scholars are expected to pursue their studies at home, where most of them are obliged by poverty to take a full share in the labours of their relations. When considered qualified, they are licensed by the bishop to preach, and await the occurrence of vacancies, which may afford them a place of final settlement. But the attainment of this object does not free them from their former active life, nor afford them that leisure which might seem necessary for continuing any literary pursuit. Compelled to take up their abode in some solitary spot, far from all intercourse with congenial spirits, they are apparently deprived both of the means and motives for mental cultivation. No stronger instance of that inherent activity of the human mind, which makes idleness the greatest of evils, can be produced than the number of Icelandic clergymen who, amidst all discouragements, continue labouring at works which they can hardly conceive will ever see the light, or procure to them either profit or fame. The long continuance of winter may partly account for this fact, there being no other means left of escaping the weariness of the protracted gloom; but it is principally to be ascribed to the peculiar mental constitution and habits of the nation.

The literature of Iceland is greatly indebted to the clergy, most of the recent authors belonging to that body. Theology may thus be expected to attract a

considerable number of writers, and we find that, ever since the Reformation, many works on this subject have continued to appear, and still more are known only in manuscript. Among the older books of this kind, we find distinguished the sacred poetry of Halgrim Petersen, the simple, touching, and Christian sentiments of which, expressed in language poetical yet easily understood, fits them well for what they were intended. At a later period flourished the learned and pious Jon Vidalin, bishop of Skalholt, whose memory is yet held in reverence by his countrymen. His homilies (Postille) for every Sunday and festival in the year were published in 1718, and, with the works already mentioned, Luther's catechism, and an old hymn-book (Grallari, or Gradual), were the only religious reading of the great body of the people. Vidalin's is, in all respects, a remarkable work, of which it has been well said, that it is difficult to conceive one better fitted for the nation. He expresses the Christian doctrine in classical language, and in a lively manner, though without much feeling, which is not well adapted to the cold reasoning minds of his readers. The work is adorned with numerous quotations from the Scripture, and, notwithstanding all the changes in public opinion, still retains its place in most of the cottages of the land. A few years ago the eleventh edition was published by four young Icelanders, and the number of subscribers amounted to 1500, which is very large when we consider the small amount of the population. Amongst the higher classes, the two volumes of sermons published by Arni Helgason, who belongs to the new school of theology, have in some measure taken the place of Vidalin's. The other writings of this class are mostly commentaries on particular parts of Scripture, and collections of prayers, homilies, or sermons, though none of them have acquired sufficient celebrity to merit any particular notice.

Besides numerous poetical paraphrases of particular parts of the Scriptures, the Icelanders possess two complete versions. The first of these, as we have already

mentioned, was translated from the German of Luther by Gudbrand Thorlakson, bishop of Holum, and published in 1584. About sixty years afterwards, a new translation, chiefly by Bishop Skulasson, conformable to the Danish Bible of Resenius, appeared under the immediate patronage of the King of Denmark. No impression of either of those having been published for a long time, Bibles in the beginning of the present century began to be very scarce; to remedy which evil, the English Bible Society printed an edition, and sent Dr Henderson to the island to ensure a proper distribution of the copies. A new version of the New Testament has lately been printed at Videy, but, having been prepared by different individuals, it presents a great want of uniformity, not merely in style, but in other more essential points. A translation of the Introduction to the New Testament by Rasmus Möller, bishop of Laaland, has also been recently published.*

The study of the classical languages is very general in Iceland, and the traveller is often surprised to find men in the humblest ranks of society able to converse with him in Latin. Many of the writings of the natives are composed in this language, especially their historical works, which thus acquire a wider circulation than they could expect in their own tongue. It forms a principal part of the education of the clergy, who are expected to speak and write it correctly, and in it many of them

* Rheinwald's Repert. vol. i. pp. 190, 207. Dr Henderson, when in Iceland in 1814, expressed his regret at the spreading of German neology amongst the clergy, and ascribed to it a very prejudicial influence on the character of the people. These opinions were first introduced about the beginning of the present century by the students who attended the Danish universities. Since then they have found their way into the school of Bessestad, and are adopted by most of the younger ministers. The present bishop was formerly one of their adherents, but is said to have now returned to the old faith. It is singular that these opinions, affecting the most essential points of Christianity, should have excited little attention and no controversy in the island; a circumstance which marks a spirit of great indifference as formerly existing in regard to religious questions.

compose poems, chiefly descriptive or epigrammatic, and indulge that tendency to personal satire which it formerly required the power of the laws to check. Greek is also cultivated, and translations from this language have appeared both in prose and verse. A knowledge of Hebrew is exacted from all the students at Bessestad, but the examinations are often merely a form, though some of the clergy are said to possess a considerable knowledge of it. Numerous philological works, mostly connected with the northern dialects, have been published from time to time; and others of great value in manuscript are found both in Iceland and Denmark.* Modern languages are frequently acquired; and besides the Danish, with which all the higher classes are familiar, many understand the German, English, and French.

Abstract studies are by no means popular among the Icelanders, and few works on metaphysics or mathematical subjects have appeared. Their peculiar disposition leads them rather to hold converse with the facts of the external world; and on this account natural history has many more votaries than any other branch of science, the wonderful phenomena around them being fitted to arrest the notice of even a more inattentive race of men. Eggert Olafsen, to whose labours we have so often been indebted, is one of the most distinguished in this class of students, and in his travels almost all the remarkable appearances in the country are noticed. This work, which is the joint production of him and of his friend Biarne Povelsen, is still the most complete account of the natural history and social condition of the island; and its value is not a little increased by the thorough

* As an instance of these we may mention an Icelandic-Latin dictionary which Dr Schieving, teacher of Latin at Bessestad, has been employed in preparing for the last twenty years, in which he illustrates the meanings of the words by quotations from the native authors. The materials he has accumulated are immense, yet he still continues to labour. The best dictionary of this language is that of Haldorson, published by Rask (2 vols 4to, Copenhagen, 1814), which is, however, very defective.

knowledge possessed by the authors of the ancient annals and literature of the country. But its confused arrangement, and the want of a proper scientific nomenclature, detract much from its utility, and have prevented it from ever becoming popular.* Many other minor pieces on this subject, especially descriptions of the volcanic phenomena, have appeared.

The Icelanders more than any other nation stand in close connexion with the past, preserving accurate genealogical registers, and realizing to themselves shame or glory in the deeds of their ancestors. This love of antiquity, added to their acuteness of observation and unquenchable curiosity, fit them at once for reading and writing history. There is probably no people amongst whom an equal knowledge, both of domestic and foreign events, is to be found. This circumstance, which strikes every stranger who sets foot upon the island, marks them as the historians of Europe; for which task their remote situation seems to secure the most perfect impartiality, whilst their highly cultivated and expressive language, is peculiarly adapted to it. We have in a former chapter noticed the ancient authors who distinguished themselves in this branch of study, and have only to add, that it has not been neglected in modern times. Among the writers of the last century the names of Torfæus, Arne Magnusen, and Bishop Finnsen, stand pre-eminent. His learned and accurate researches in Norwegian and Danish history have gained the first a European reputation.† Arne Magnusen was the great means of recalling attention to the literary monuments of his country, and by his munificent collections, and the society which bears his name, has pre-

* As specimens of his names for rocks we may quote *Saxum arenariomicaceum* and *Saxum ochraceoargillosum rubrum*, even common turf is translated into the Latin, *Humus bituminosa solida aëre indurescens.*

† Among his works we may mention his Series Dynastorum et Regum Daniæ (4to, 1702), Historia rerum Norvegicarum (4 vols fol. 1711), Historia Faröensium, Grœnlandia Antiqua, Vinlandia Antiqua, &c. most of them published at Copenhagen.

served many of them from destruction. Bishop Finnsen is chiefly celebrated for the ecclesiastical annals of his native island, and for his labours in editing several of the old authors. Amongst the writers of the present day Chief-Justice Stephensen holds an honourable rank; and his history of Iceland during the last century is filled with the most valuable information regarding its civil condition and literature. He also at one time published annually a kind of political register of the principal events that had occurred in Europe during the preceding year. A somewhat similar periodical, composed and printed at Copenhagen by one of his countrymen residing there, conveys to the reader every spring and harvest an account of the political occurrences of the great world. It consists principally of extracts translated from the newspapers, and arranged so as to form an historical summary of events.

Poetry has not in modern times retained that place in the literature of the island which was formerly awarded to it. The melancholy disposition of the nation, and that turn of mind by which they are led rather to converse with the external world than with the internal, is unfavourable to poetic composition. Hardship and misfortune have dulled the ear to the harmony of sound, and poetry, like music, is now seldom heard in their land. But to this there are honourable exceptions, and amidst such a mass of literature we find some works of this class. Among its votaries we may mention the venerable John Thorlakson, who, besides many original poems, translated the Paradise Lost of Milton into Eddaic verse. In his small dark closet in a remote district, amidst poverty and labour, this work was completed, with little hope that it would ever be published; the whole income of his two parishes being only about six pounds per annum, from which he had to pay an assistant. Yet the merits of this poem, produced under such discouraging circumstances, are by all allowed to be very great, though rather those of a paraphrase or an original poem than of a translation. It is in the measure of the

Voluspa and other old poems of Sæmund's Edda, of which he was a complete master, though its short and broken lines seem very unlike the lofty measured strains of the original.* Besides this he also translated Pope's Essay on Man, which was published in Iceland, and Henderson found him, when upwards of seventy, occupied, notwithstanding his increasing infirmities, in translating Klopstock's Messiah. He died in 1819, having shortly before received a present from the Literary Fund in London, too late, it is to be feared, to alleviate the poverty which pursued him all his life. Of other recent poets we can only name Benedict Groendal, Sigurd Petersen, and the well-known Finn Magnusen. But the poetry of this ingenious people is rendered still more scanty by the almost utter impossibility of the authors publishing their works, as the readers are too few and too poor to defray even the expense of printing and paper.

The literary character of the Icelanders of the present day does not, however, depend so much on the fame of individual works or authors, as on the universal diffusion of a taste for such studies throughout the whole mass of the population. This interesting feature in the national character was noticed in a former part of this chapter, when describing the life and manners of the natives. It probably originated in those circumstances which called forth the historic sagas of the first period,

* The first three books of this poem were printed in the last three volumes of the publications of the Icelandic Literary Society. The remainder was only known in manuscript till 1828, when it was published at Copenhagen by Mr Heath. Finn Magnusen composed in Icelandic and English a poem of thanks, in the name of the Icelandic Literary Society, in the measure of the original, the following verses from which will give the reader a clearer idea of its peculiar structure :—

" Bodily sights,
Baleful darkness,
Sharpeneth the eyes
Of shining soul;
The Genius saw
God on his throne,
He saw what we
But see in picture,—

Angels, demons,
And their strife,
Heaven and hell,
Honour and shame,
Earth's creation,
Eden's bliss,
First of men,
Fallen, redeemed.

Milton sang
This matchless chant,
Praise of God
And Paradise,
Mundane Epos,
Fall of man.
Not with suns
The song expires."

and has been preserved by the peculiar condition of the inhabitants. Their manner of life and the climate of their country leave them much leisure time, whilst the wide distribution of the inhabitants precludes all social meetings, and compels every family to trust to its own resources for amusement during the long winter nights. But their still and contemplative disposition, almost approaching to apathy, disinclines them to all the lighter and more stirring amusements, and turns their attention to those that are sedentary and intellectual. Hence chess and draughts are greater favourites than music or the dance; and reading, which appears to combine utility with pleasure, is preferred to all other relaxations. An easy and abundant source of amusement is thus supplied to relieve the tedium of the dark season, till summer again calls them forth to enjoy the green fields and the warm sun. There is another circumstance almost peculiar to this country which must powerfully confirm this direction of the national mind. The traditional lore transmitted from sire to son in the rudest hamlet of the island, is the literature also of the wise and learned. The simple strain that hushes the infant in its cradle is some fragment of a skaldic lay sung to heroes in the battlefield or the prince's hall; and the nursery tale is but the rude outline of the people's history, the daring deeds or perilous adventures of the nation's founders. To these worthies of a former age most of the present natives can in one way or another trace their pedigree, and family pride thus gives these tales a deeper interest. When to this we add that the language of the oldest sagas is quite intelligible to the least educated person in the present day, so that they can read with equal pleasure the most ancient and the most recent writings of their countrymen, it need not excite astonishment to find these studies ardently pursued by all classes of the community.

GREENLAND.

CHAPTER VII.

Description of Greenland.

Opinions of the Ancients—Form and Position—Coasts—Hills—Interior—Fiords—Iceblinks and Icebergs—Currents and Tides—Springs—Rivers—Is Greenland a Continent?—Climate—Temperature—Seasons—Aurora—Unequal Refraction. TOPOGRAPHY—Arctic Highlands—Disco Island—Baal's River—Frederick's Hope—Frobisher's Straits—Juliana's Hope—Sermesoak—Fredericksthal—Cape Farewell—East Coast—Graah's Voyage—Ivimiut—Taterat—Peculiar Appearance of the Natives—Nennortalik—Griffenfeldt's Island—Ekallumiut the Greenland Paradise—Colberger Heide—Scoresby's Voyage—Gale Hamke's Land—Proof of its being inhabited—Jameson's Land—Traill Island—Situation of the Ancient Colonies.

THE darkness which for so many ages shrouded the northern regions of the earth, still hangs over a great portion of Greenland. The floating ice which constantly infests its shores and the surrounding ocean has always rendered discovery at once difficult and dangerous, whilst its inhospitable climate and rugged surface have equally prevented travelling by land. The eager search after the North-west Passage has also led most voyagers in recent times up Davis' Strait, and along the American coast. For these reasons, it is principally to the missionaries, men whom an ardent desire to instruct and benefit their fellow-creatures has induced to brave the rigours of a polar climate, and, renouncing the pleasures and conveniences of civilized life, to associate with the most degraded and repulsive savages, that we

owe any increase of knowledge regarding these regions. Their accounts, however, are chiefly confined to a few detached points on the western coast, whilst the north and east are still but very partially known. Where our information is limited, fancy is apt to be the most active, supplying from the stores of imagination the deficiencies of experience; and hence the older geographers found in Greenland a last retreat for many fabulous localities no longer able to maintain their ground on the European continent. Thus, in the curious map of those hyperborean regions drawn by Sigurd Stephensen in 1570, it is represented as extending almost to Norway and Russia or Biarmaland, and part of it called Riseland, we are informed, is peopled by Skrickfinna or horned giants; to the eastward of whom are others whose immense nails or claws have procured them the title of Klofinna; and these are followed by a still more hideous race who inhabit Jotunheimar, as to whose personal peculiarities the author unfortunately leaves us in the dark. This opinion of the great extent of Greenland towards the east long prevailed, Spitzbergen being united to it by a continuous tract of land, and there is reason to believe that the island of Nova Zembla is the Jotunheimar of the map. Even at the present day, the northern portion continues almost unknown, and its coasts very imperfectly laid down in the charts, whilst the fact of its being completely disunited from the American continent has only been confirmed by the recent voyages of Ross and Parry.*

As far as is known, Greenland approaches to the form of a triangle, the vertex of which is directed to the south,

* Torfæus Gronlandia Antiqua (Havniæ, 1715), p. 21, tab. ii. 24. Much of the confusion of ancient geographers regarding the northern countries appears to have been caused by their imperfect methods of determining latitude. They seem to have been almost exclusively guided by the climate, and as this becomes more rigorous in the same latitudes towards the east, the countries in that quarter were generally carried far north of their true position. This also accounts for Iceland being often placed almost entirely within the arctic circle.

whilst its base is turned towards the pole. Its most southern extremity, Cape Farewell, the Omenarsorsoak of the natives, the Statenhook of the Dutch, is a lofty promontory visible far out at sea, situated in lat. 59° 48′ N. and in long. 43° 54′ W. from Greenwich. From this point the land widens, stretching on the one side in the direction of west-north-west, and on the other of east-north-east. The country southward of latitude 68° is called South Greenland, whilst the remainder is termed North Greenland. How far the latter may extend has never been determined: the ancient inhabitants believed that it reached to the pole, and it is probable that even if the land terminates sooner, the fields of ice continue to that point. The interior of the southern portion is equally unknown; inaccessible mountains and deep ravines, filled with eternal ice, forming an insurmountable barrier against all attempts to explore this desolate region. Our information is thus confined to a narrow strip along the shore, chiefly in the vicinity of the Danish colonies. Whilst the boundaries are so undefined, it must be impossible to estimate its magnitude with any accuracy; the portion, however, occupied by the settlements on the west coast is about 6500 square miles.*

That part of the country which is known may be considered as a mountainous land. The hills in general approach near to the shore, leaving only a small extent of level ground intervening, whilst in many places even this disappears, and innumerable peaks, ridges, precipices, and needles rise immediately from the sea, their dark sides being only diversified by patches of ice and snow. This is particularly the case in the vicinity of those headlands which stretch into the ocean between the various firths, a striking description of one of which is contained in the following passage from a recent voyage. "No sign of vegetation was observable on these walls of

* Hassel's Erdbeschreibung, vol. x. p. 61. Graah's Narrative of an Expedition to the East Coast of Greenland (English Translation, London, 1837), p. 61.

rock. Not a blade of grass, nay, at many places, not even a bit of moss, to be seen about them. Nor did the animal kingdom, in this desolate region, exhibit more signs of life than the vegetable. The water-fowl that off Illoa had been flying about us in flocks of thousands, had disappeared, as well as the seals and other marine animals, and a solitary raven, that in the evening flew croaking over our heads, was the only living thing we saw: with this exception, the solemn stillness that reigned around us was unbroken but by an occasional report, caused by the calving of the iceblink, or the bubbling sound proceeding from the rapid current. Just before nightfall we were fortunate enough to reach one of the few spots along this sound (Prince Christian's) where it is possible to haul a boat on shore; and scarcely had we effected this, when it set in to blow a violent gale from the north."*

The hills which thus skirt the coast are in general very rugged and broken in their outline. Protected from the ravages of the weather by no grassy covering, the soil which, by filling up the interstices of the strata, gives to the mountains of other lands a more rounded and softer aspect, has all been washed away by the rains. Sometimes the naked rocks rise into sharp lofty pinnacles, whose dark summits protrude far above the icy mantle that clothes their base; at others, the whole hill forms a series of alternating mural precipices and terraces distinguished by lines of dazzling snow; whilst the complete disintegration of the strata has reduced many of them to a mass of loose unconnected stones. Though their height seldom exceeds 3000 feet, this elevation is sufficient to carry them into the region of perpetual snows. The highest mountain on the western coast is the Hiortetakken or Hart's Horn, near Godthaab. It is divided into three points, which are so steep as to prevent the snow from lodging except in the crevices, and serves the sailors for a sea-mark, whilst the clouds that gather on

* Graah's Greenland, pp. 47, 48.

its summits warn the timid native of approaching storms. Next to it is that of Kunnak, from 4300 to 4500 feet high, whose lofty ridges are cased in perpetual ice. The snow-line on these mountains appears to fall considerably below the height determined by calculation, which in latitude 60° is 3664 feet, and even in 70° amounts to 1557 feet.*

The hills in the interior do not appear to exceed those on the coast in elevation, but, on the contrary, rather to fall short of them. From all accounts, this part of the country is occupied by insulated rocky mountains and sharp acuminated cliffs, separated by narrow valleys or chasms, rendered inaccessible by the glaciers. In these places, never visited by the rays of the sun, ice and snow accumulate to a vast depth. The mountains are either entirely bare or covered with a mourning veil of black lichens, variegated here and there with spots of crumbling snow, which, dissolved by the sun, flows in silvery threads down the precipices. The water, converted into ice, splits the rocks with immense force, and the fragments precipitated from the summits with thundering noise, threaten death to every intruder. Even the Greenlander, accustomed as he is to the horrors of nature, calls these spots places of desolation.†

Several attempts have been made to penetrate the recesses of this lonely region, but every adventurer has failed to surmount the obstacles that opposed his progress. In 1728, the Danish government ordered Major Paars and Captain Landorf to ride across to the lost colonies on the eastern coast, but, as might have been expected, they were soon stopped by the ice and precipices. A better contrived, though nearly equally unsuccessful effort, was made by a private trader, who had resided many years at Frederick's Hope, on the western coast. Accompanied by five Greenlanders, he left this place on

* Crantz's History of Greenland (2 vols 8vo, London, 1820), vol. i. p. 7. Scoresby's Greenland, p. 219. Arctic Regions, vol. i. p. 99. Graah, pp. 26, 71, 85.

† Giesecke, Edin. Ency. vol. x. p. 489.

the 2d September 1751, with the intention of crossing to the other side. Their first day's journey was over the mountains on the shore, till they reached a bay, the entrance to which is now completely filled with ice from a neighbouring glacier, though formerly it was quite open. Crossing this on the 3d, they proceeded all that day over a rock, stopping in the evening on the outskirts of the ice-glance or field. Next morning they travelled over it the distance of two leagues, the road being as level as the streets of Copenhagen, to the top of a mountain which rises from its surface. Having arrived there soon after sunrise, they spent the remainder of the day hunting rein-deer, one of which they shot; and as there was nothing to make a fire with, the natives ate the flesh raw. The following day they proceeded to a rock, which appeared the highest on the glacier; and the ice being uneven and full of chasms, they reached its summit, though not without great labour and difficulty. From the top their leader had a very wide view on all sides, and was filled with wonder at the spacious field of ice, extending to the snowy mountains on the eastern coast. These he at first thought very near, not more than ten or twelve leagues distant, but on looking back to those near Goodhope, at least forty-eight leagues removed, he found his first estimate much below the truth. They descended a little, and lay down for the night, but the activity of his thoughts and the extreme cold prevented him from sleeping. Next morning they shot another deer, on whose raw flesh they made a good breakfast, and the trader himself, having tasted nothing hot for five days, took a good draught of the warm blood, which he says was far from doing him any harm. He was now forced to return, much against his inclination, the boots, of which they had two pair each, being completely cut through and worn out by the sharp ice and stones. He therefore set out for home, where he arrived on the evening of the 8th, having been seven days absent.

From what he saw of the surrounding country, it seems to be almost entirely covered with ice and snow,

except a few peaks of naked rock which rise above its surface. The ice appeared pretty level, and the pits and chasms in it, he thought, would prove no insuperable impediment to passing from the one side to the other. The extreme cold, however, he conceived would make such a journey impossible, the intensity of it exceeding any thing he ever felt during the winter nights he had lain in the open air in other parts of Greenland. The difficulty of carrying provisions would form another obstacle; and now that the eastern shore has been attained in boats, there is no object to induce any one to make the attempt. His account of that portion of the country which he visited may be regarded as correct, since it is confirmed by those who have viewed it from the mountains on both coasts. For instance, Graah concluded that some lofty snow-covered peaks observed from the top of a hill about 3000 feet high in Griffenfeldt's Island, belonged to the Niviarsiet or Maidens, in the district of Juliana's Hope. The curious fact of their finding rein-deer in this desolate region, would seem to imply that it was not all so barren or devoid of vegetation as the portion just described.*

As we have already, in our description of Iceland, given an account of the formation and general appearance of the glaciers, we shall delay any further observations on them until we have noticed the coasts and fiords, with some of the phenomena of which they are intimately connected. Both sides of this country possess that appearance, which may in some measure be considered as characteristic of the shores of the Greenland sea. Its torn and rocky border, lined by an innumerable multitude of islands and shoals, looks like the fragments of some former system. Long narrow bays or fiords, like broad rivers, run far up amidst the lofty mountains, or rather table-land, of the interior. The numerous branches and windings of these give rise to various appearances, one portion being often

* Crantz's History of Greenland, vol. i. p. 18-23. Graah, p. 85.

raised by the winds into a violent storm, whilst in other more sheltered parts the surface is scarcely broken by a single ripple. Not less striking are the effects of light and shade on those deep waters, one place glancing in the bright rays of the sun, whilst the next is shaded in the thickest gloom, or reflects the dark overhanging precipices. These appearances are common to the coasts of Norway and Iceland, as well as Greenland, but this last has some peculiar to itself. The vast icy plains of the interior abut upon these fiords, and continually moving forward, gradually encroach on them. Hence we find that the greater number are closed at the extremity by a glacier, close to which the water has often a depth of some hundred fathoms. Several of the inlets are now completely filled, and at others the ice even projects far out into the waves, forming a considerable promontory. The Greenlanders have many traditions of bays now inaccessible having been formerly navigated, and of others of which scarcely a trace remains having once extended from sea to sea.* These opinions are not without probability, as the open ocean seems the only barrier that can put an effectual stop to the progress of the glaciers; and wherever they encounter the salt water, the phenomena exhibited are terribly majestic. The ice gliding down the steep banks is slowly corroded below by the waves; but the destruction thus produced is more than compensated by the masses that press on from behind, and the accumulation of rain and snow from the atmosphere. When a spring or small stream chances to enter the sea at the same place, the rapidity of increase is much augmented, and the catastrophe hastened. This takes place when the protruding mass can no longer support its own weight, but separating from that on the shore, plunges into the deep in huge fragments, forming those numerous icebergs met with in the Northern Ocean. As these glaciers, with precipitous cliffs named iceblinks, in many places extend for miles along the beach, and in summer

* Crantz, vol. i. pp. 5, 6. Graah, pp. 62, 96.

are often full of huge gaps and fissures, it is extremely perilous to approach them, and hence numerous accidents happen to the natives. The danger is not confined to the immediate fall of the ice, for the waves raised by it are sufficient to swamp one of their frail canoes, and have been known to wash themselves off the rocks where they had taken up their abode for the night. Under one of these, the Colberger Heide, Graah was detained fifteen days during his expedition on the eastern coast. At that time it terminated in a multitude of tall, bluish, semi-transparent peaks or pyramids, and was in a very tottering condition, whilst at its base were seen a number of small low skerries, which the year before had been buried under the ice. On these they hauled up their boat to pass the night, but in the morning found themselves so beset, that it was impossible either to return or proceed. Though often in great danger from the fragments, detached from the cliffs with a noise like the discharge of musketry or cannon, yet fortunately they escaped without any material injury. "Huge masses from time to time were precipitated from it, which, as they fell, were dashed into innumerable fragments, causing the sea to sweep over the rock where we were perched, on one occasion with such force as to carry away the boat, and my tent, which had been pitched nearest the water's edge, the distance of several fathoms from the spot they stood on."*

It is to these projecting glaciers that those mighty icebergs which infest the Greenland Seas owe their origin. Their immense height, often exceeding a thou-

* Graah, pp. 93, 137, 138. Crantz, vol. i. pp. 26, 27. Scoresby's Arctic Regions, vol. i. p. 101-109. Off some of these blinks the ice is said to shoot up from the bottom of the sea in such a quantity, as in many years to make them utterly impassable. Graah (pp. 79, 80) accounts for this by supposing the bottom of the sea covered with a crust of ice like the dry land; but more probably they are fragments sunk by stones enclosed or adhering to them. These become loosened in the process of melting, and the ice then naturally rises to the surface. Their more frequent occurrence off some glaciers than others may arise from the ground on which these rest being composed of looser materials, which are thus oftener imbedded in the superincumbent mass.

sand feet, proves that they cannot be produced from the freezing of the surface of the open ocean, as this is never known to proceed nearly to such an extent. Many of those masses which surround the southern shores of Greenland, are probably formed in a far higher latitude, where the longer duration of the cold must produce proportional effects. The great south-west current sweeps the ice down in such quantities as often completely to block up the channel between Iceland and Greenland. During the whole summer, it besets the shores round Cape Farewell, and up the western side to 62°, and in some years even to 66° and 67°; but in September or October it all disappears, not returning again till January. This curious phenomenon is in all probability caused by some variation in the currents; the one round Cape Farewell ceasing from September to January, whilst the other down Davis' Straits continues the whole year.*

The appearance and magnitude of these icebergs are very variable. Some in Disco Bay have been observed aground in water 300 fathoms deep, and must therefore have exceeded 2000 feet in height. They are often seen on the eastern coast rising 120 to 150 feet above the water, and as not more than a seventh or an eighth part is ever visible, they must have had an absolute height of 900 or 1000 feet.† With this elevation they are frequently above a mile in circumference, thus containing 1000 to 1500 millions of cubic feet, weighing from forty to fifty millions of tons. As these are found floating in the open sea after being long exposed to the wasting effects of the waves and currents, their bulk when originally separated from their parent glacier must have been far greater. During this gradual decay they often assume strange fantastic forms, more like the visions of an eastern poet than the works

* Crantz, vol. i. p. 33. Graah, p. 54, and Ross's Note.

† Scoresby makes the specific gravity of ice to sea-water at a temperature of 35° from 0.894 to 0.900; hence the part projecting would be to that immersed as 1 to 8.2. Arct. Reg. vol. i. p. 234.

of nature in an arctic land. Some resemble palaces, churches, or old castles, with spires, towers, windows, and arched gateways, fashioned of the purest marble, or, when the sun shines on them, of the finest silver. Others appear like ships, trees, animals, or human beings, recalling the most exquisite works of Grecian artists. Their colours are also extremely beautiful, some brilliant as burnished silver, others reflecting all the various hues of the rainbow, bright green, blue, and orange being the prevailing tints. But it is only when seen at a distance that the spectator can admire their form or trace out fancied resemblances, for when near, the feeling of terror and danger predominates over every other emotion. In the Alps the agitation of the air from the flight of a bird or a whisper of the human voice is thought sometimes to cause an avalanche; and the Greenlanders believe that the dashing of their oars in the water, or the reverberation of a loud sound, frequently loosens fragments from an iceberg. When obliged to pass them, they therefore glide on in solemn silence till the danger being over they burst out into a shout of thankfulness and joy.*

The quantity of ice on the land or adhering to the shore, and constantly decaying under the influence of the sun and tides, is the cause why the water there is less salt than in the open sea.† The streams and currents are in many places rapid and dangerous, especially during high tides. The principal currents are those lately mentioned as flowing, the one south-west along the east-

* Crantz, vol. i. p. 24, &c. Scoresby's Greenland, pp. 84, 232. Arctic Regions, vol. i. p. 225, &c. Ross's Voy. Arct. Regions, vol. i. pp. 23, 135. Graah, pp. 93, 104, &c. Ice, both fresh water and salt, has a tendency to separate, on the temperature rising above the freezing point, into distinct prismatic columns similar to basaltic pillars. It is this property which renders both the glaciers and icebergs so extremely fragile and dangerous.

† In the Greenland sea the specific gravity, according to Scoresby, is 1.0267 with about 3.67 per cent. of saline matter. Ross in Baffin's Bay found the specific gravity so low as 1.0254, which would give about 3.5 per cent. of saline matter. Vide Scoresby's Arctic Regions, vol. i. p. 182.

ern coast with a velocity sometimes of twenty miles a-day, and the other, also from the north, down Davis' Straits. Where they are confined among the numerous island channels on the coast, they produce many whirlpools, one of the most remarkable being at the mouth of the Puiosortok Firth in the south-east of Greenland. The rise of the tides is for the same reason very irregular; but from the latitude of 60° to 64°, it is about eleven feet, decreasing gradually towards the north, where it is only from four to six, though with many local exceptions.

Fresh water is by no means abundant in this country, being in general the immediate produce of the melted snows. The most interesting of the true springs are those on the island of Ounartok, which form three pools of warm water used as baths by the natives. The smallest of them has a temperature of 90½°, the second of 92¾°, and that of the largest, which is seventy feet in circuit and about a foot deep, is from 104° to 107¾° of Fahrenheit. Rivers, properly speaking, cannot be said to occur in Greenland. There are indeed a few small streams into which salmon migrate, but their course is too short, and the body of water too inconsiderable, to entitle them to this appellation. Even these in the summer months are often dried up by the heat of the sun, whilst in winter the extreme frosts frequently stop the sources whence they draw their supplies. Large lakes are, however, sometimes formed in the valleys, where the accumulated snow prevents the water produced during the warm season from finding its way to the sea. This deficiency of running streams is owing in a great measure to the vicinity of the hills to the shore, and to the circumstance that the high ground in the interior is constantly covered with ice. It is also connected in all probability with the peculiar formation of the land, which we shall now notice.

Formerly Greenland was looked upon as a vast peninsula, closely united to America, and composed of one solid mass of land; but modern discoveries have proved its total disunion from the western continent, and have even thrown doubts on its own internal unity. Many

regard it as consisting of a vast assemblage of islands now as it were glued together by the ice which has filled up and hidden the intervening sounds and channels. This opinion is supported by the great length of the fiords, some on both coasts extending ninety or a hundred miles into the interior. Scoresby also observed a strong current setting into Davy's Sound on the eastern coast in latitude 72° which was not returned by any of the others; and Giesecke mentions several firths or bays on the western side in nearly the same latitude, 68° 40′ to 72° 48′, out of which there is a constant stream. The natives unanimously believed that one of these called Ikek or Ikaresak formerly communicated with the other side, and were afraid that the ice would again go off in some heavy north-eastern gale, when the people would come over and kill them. They also stated that from time to time carcasses of whales, pieces of wood, and fragments of utensils, were to be seen drifting out of this bay. The want of high mountains in the interior, and the absence of large rivers, both of which might be expected in a country of such extent, also support this view. But though these facts render this opinion extremely probable, it must be left to future observations to confirm or refute it.*

A great portion of Greenland being situated to the south of the arctic circle, and part even so low as the parallel of the Orkney Islands, it might be expected to enjoy a milder climate than it actually possesses. But in this case, all the local peculiarities which modify temperature have an unfavourable tendency. The vast extent of land or solid ice lying between it and the pole forms a constant magazine of cold, the chill winds from which cool down the rest of the country. The structure of the land rising immediately from the sea to an elevation of two or three thousand feet, and then spreading out into a wide

* Scoresby's Greenland, p. 329, and Giesecke's Note, ibid. p. 467. It is remarkable that both in Norway and Iceland, countries of far less extent than Greenland if a whole, we find mountains nearly twice the height of any in this last, together with numerous large rivers.

plain protected from the north winds by no range of mountains, acts in a similar direction, manifesting its influence by that icy mantle which constantly clothes its surface, and absorbs or reflects every ray of heat that reaches it. The vicinity of the sea, whose beneficial effects are so distinctly seen on the coast of Norway, produces here little amelioration of climate. The great equinoctial current passes far from its shores, whilst that from the pole, loaded with floating fields and mountains of ice, sweeps around them. The short summer is also the very time when this ice appears in greatest profusion, thus still more depressing the mean temperature of the season; but as it usually departs in the winter, the cold at that time is seldom so intense as in many parts of northern Europe. This is particularly the case in the low-lying sheltered spots on the coast or the interior of the fiords, where the colonists usually reside. In these places in South Greenland it seldom exceeds — 4° or — 8° of Fahrenheit, and in the winter of 1828-1829 when Graah resided at Nennortalik, latitude 60°, the weather on the whole was mild, and the thermometer generally above zero. Farther north, however, on the western side, the climate increases in severity, and at Omenak (70° 41′) and Uppernavik (72° 48′), north of Disco Island, the cold is often — 36° and even — 48° Fahrenheit. At these times the intense frost splits asunder the very rocks, and on waking in the morning one finds the sheets and pillows incrusted an inch thick with the frozen breath. The ice penetrates down the chimney almost to the very stove, and forms an arch over its mouth with little holes through which the smoke issues. The flesh-barrels must be hewn in pieces to get out the meat, and when this, thawed in snow-water, is set over the fire, the outside is boiled sufficiently before the inside can be pierced with a knife. Clammy spherical concretions form on the surface of the sea, soon coagulating into a thick crust; beer and other strong drinks are congealed; whilst brandy and spirits of wine become thick and viscid like oil. A vapour like smoke rises from the sea, especially in the bays, and

wafted into the cold atmosphere, freezes into fine particles which, when driven against the face or hands by the wind, enter the skin like needles.* At such seasons the poor Greenlanders suffer great privations, as they are prevented by the intense cold and ice from fishing. Fortunately this extreme depression of temperature seldom continues long, as a wind from the south-east is usually accompanied by an agreeable warmth which raises the thermometer eight or ten degrees above the freezing point. Hence even in winter the snow on the rocks frequently melts, and the inhabitants enjoy milder weather than those of central Europe. It is a curious fact, though one easily explained from the relative position of the sea and land, that the character of the seasons in Greenland is usually the reverse of those in the western parts of the European continent.

The climate of the eastern coast is considered more severe than that of corresponding latitudes on the west. This is perhaps in some measure owing to the greater quantity of ice brought to its shores by the currents, which accumulates into a compact body, only yielding to a long-continued wind from the land. The glaciers also seem to be more extensive, and to approach nearer to the water. More snow is also said to fall there than on the other side, which, uniting with them, increases their magnitude, and gives probability to the opinion that they are now larger than when the country was first settled, and are still encroaching on the open ground.

The natives count their summer from the beginning of May to the end of September, and during these five months reside in tents. But this season can scarcely be said to commence before June, as till that time snow continues to fall, and the ground is still hardened with frost. In the end of April, many of the sounds contain

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* These icy showers have been asserted to overwhelm the natives with cold, and to destroy them somewhat like the burning sand-clouds in the Arabian deserts; but this appears to be an exaggeration.

ice a foot thick, formed the preceding winter, and it is only now that vegetation begins to appear. The weather is then generally settled and serene, the air in the bays and valleys oppressively hot, and the thermometer rising to 86° in the shade. But near the open sea the fogs that prevail from April to August, and the chill winds from the icebergs, soon make the inhabitants glad to creep into their furs again, and at a distance from the shore the temperature even in the finest weather rarely exceeds 45°. The most agreeable and settled season is autumn, though it is frequently interrupted by night-frosts as well as by snow, which begins to fall in August, though it seldom lies before October: At this period tempests of wind are very common, during which none dare stir from their houses, or expose themselves to their violence. Thunder-storms, on the other hand, are almost unknown, and lightning, when it does occur, is seldom accompanied with any sound.*

Among the many very interesting meteorological appearances which distinguish this country, the Aurora Borealis is one of the most remarkable. Though not peculiar to these regions, it is yet far more frequent there than in more southern climes, and its phenomena are more likely to lead to a solution of some doubtful problems connected with its origin and history. For a long period previous to the beginning of the eighteenth century (1716), it was altogether unknown in England, and almost equally so in Sweden and Iceland; whilst Torfæus recollected the time when it was viewed by his countrymen with terror and astonishment. Since then it has become very common, and also assumes various colours and hues, which were formerly unknown. In Greenland, Graah noticed two varieties, the one appearing uniformly between the magnetic E S.E. and W.S.W. as a luminous arch shining with a more or less vivid light, and having its highest point in the south,

* Crantz, vol. i. p. 40-49. Egede's Nat. Hist. of Greenland, p. 51-58. Graah, pp. 51, 66, 113. Giesecke, pp. 487, 488.

ten or twenty degrees above the horizon, whence rays diverge towards the zenith. This has usually been observed to precede some great change of temperature, especially from thaw to frost. The other kind, which seems more immediately connected with barometrical changes, flits from place to place, either like thin luminous clouds, agitated by the wind, through which the light diffuses itself with a sort of undulating motion; or like flaming rays flashing across the firmament, generally towards the zenith; or, finally, like a serpentine or zig-zag belt of vivid undulating light, frequently coloured, which at one moment is extinguished to be the next rekindled. The most beautiful, however, of this class of phenomena is the corona, a luminous ring two or three degrees in diameter, situated near the zenith, with rays diverging from it in every direction. It seldom lasts above a few seconds, when it seems to explode, its matter being scattered on all sides. He found that its centre was invariably to the eastward of the meridian, 81½° to 82½° above the horizon, accurately corresponding with the dip of the needle. It assumes many other forms besides these, two of the most remarkable of which were observed by the Danish travellers in Iceland. In the one case the aurora rose in the west, and spread out in two bright arches, low down in the northern and southern horizons, till they met in the east. This luminous ring continued about three hours, though in the interval other bows and flames, which had covered the whole upper part of the sky, had disappeared. On the other occasion an arch rose from the west upwards to the zenith, and from this point sent out a bright beam downwards, at a right angle, to the north, which was again divided into two. Besides white, the aurora displays yellow, green, and purple-red colours, and, when in full splendour, its light surpasses that of the moon. The superstition of the Greenlanders, who conceive this beautiful meteor to be the spirits of the dead playing at ball with the head of a walrus, and fancy that it draws nearer to them when

they whistle, is not more absurd than the idea long prevalent in some parts of Europe, that it was ominous of war, pestilence, and famine.*

The curious effects of the unequal refraction, produced by the varying temperature and density of the different strata of air, constitute one of the most singular phenomena of those northern regions. They usually occur on the evening or night after a clear day, and are most frequent on the approach or commencement of easterly winds. Not only does this state of the atmosphere elevate places above their proper position, bringing objects sunk below the horizon into view, but also changes and contorts their appearance. It most usually produces an increase in the vertical dimensions of the object affected, elevating the coast and giving it a bolder and more precipitous outline; making the fields of ice rise like cliffs of prismatic spar, whilst the higher and more irregular masses assume the forms of castles, obelisks, spires, or where the pinnacles are numerous, a forest of naked pines. In other places, it displays the resemblance of an extensive city, crowded with public edifices, whilst huge masses of rock

* The cause of this splendid phenomenon is still involved in doubt, though probably in some way connected with the magnetic and electrical properties of the earth. Graah seems to think that it is a peculiar substance, capable of being acted on by the winds; an opinion confirmed by the observations of Thienemann in Iceland, and Wrangel in Siberia, according to whom the light, on reaching the zenith, vanishes like thin light clouds, which remain after the shining has disappeared, and are visible even on the following day (als wirkliche kleine krause Wolken). On the other hand, its elevation, great transparency, and rapidity of motion, are opposed to this idea, and the coincidence of some of its phenomena with the direction of the dipping needle would rather favour the opinion of its being a mere optical appearance similar to the rainbow. It is worthy of notice, that its more frequent occurrence in the Atlantic regions has been accompanied by its diminution in Eastern Asia, as Baron von Wrangel was assured by the natives, who added, that formerly it was brighter than at present, and frequently coloured like the rainbow. See his Physikalische Beobachtungen, Pog. An. vol. lxxxv. p. 156. Thienemann, Pog. An. vol. lxxv. p. 59. Graah, p. 52. Crantz, vol. i. p. 46. The last remarks, that they are never seen to rise either in the north or north-west, though this often occurs in Iceland. Vid. Olafsen's Reise, th. ii. p. 159.

seem suspended freely in the air. Sometimes ships are seen with their rigging curiously distorted, an additional sail or an inverted image of the vessel many times larger than the real object appearing above. Such are a few and but a few of the changes produced, "as from the stroke of the enchanter's wand;" but many others occur which it is impossible to describe, their forms altering with inconceivable rapidity, and one deceitful image disappearing only to be replaced by another.*

There are few places in this extensive country which possess sufficient interest to render any detailed account of them necessary. The features of all seem to be nearly similar, so that our general description is applicable to most of them, and would deprive more particular accounts of all interest. The western side, on which the Danish settlements are stationed, is still the best known, though much even of it is very imperfectly represented in the charts. Most of the missionary establishments and colonies are placed on islands near the coast, a few only being situated on the mainland at the mouths of the firths, where the rugged features of the country are somewhat softened down. As might be expected, they are also confined to the more southern part of the country, none of them being much to the northward of Disco Island. The natives here affirm, that this coast is inhabited nearly as high as latitude 78°, in which the extremity of Baffin's Bay is situated. They also say that their country is separated from America by a strait so narrow that they can speak to the inhabitants on the other side, though the strong current prevents them from crossing over to each other. Whatever credit we may give to these traditions, there is nothing in the appearance of the land to contradict them, and the people found by Sir John Ross, near the parallel of 76°, informed him that they came from the north, where most of their nation dwelt.

* Scoresby's Greenland, pp. 96, 106, 117, 164. Arctic Regions, vol. i. p. 384-391.

The district they inhabit is about a hundred and twenty miles long by twenty broad where widest, and is shut in on all sides by the sea and lofty snow-covered mountains. It seems a mere irregular mass of hills, intersected by ravines and precipices. Ross thinks that the mountain barrier, which extends from 74° 30′ to 76°, is altogether impassable owing to the precipices and ice which frequently run several miles out to sea. As, however, the southern Esquimaux came from the north, this opinion is at least doubtful. The natives he met with were of the same race, and spoke a dialect of the Greenland language, differing somewhat from that of the south. They have no knowledge of their neighbours in that quarter, and are altogether ruder and more ignorant. Though living upon fish, they have no means of supporting themselves on the water, and are unacquainted with the kayak or canoe even by name. They appeared to have no religious ideas; but, contrary to the custom of those in the south, acknowledged the authority of a king or chief.*

After passing the mountain barrier, the coast, though presenting a less formidable aspect, is still almost a succession of lofty cliffs, with a great depth of water near the land. Northward of latitude 71° it is guarded by the Vrowen or Women's Islands, most of them little more than mere rocks; and on one of them, in 72° 32′, is placed the colony of Uppernavik, the most northern of all the European settlements. It has, however, been almost deserted on account of the difficulty of intercourse with the other colonies, and is now inhabited by a few families of Esquimaux. The next settlements to the south are those on Disco Bay, chiefly frequented for the whale-fishing; but of these we shall only name Egedes-minde, or the Memory of Egede, established in honour of that pious missionary, and the residence of the governor of North Greenland, Godhavn on Disco Island. This, though the largest on the whole coast,

* Ross's Voyage to the Arctic Regions, vol. i. p. 104-188.

is, with the exception of the colony just mentioned, uninhabited, but the fisheries in the bay are the most productive, and the surrounding district consequently the most thickly peopled in the country. From this place to Godthaab the mainland is intersected by numerous fiords, reaching to the glacier in the interior; many small islands are also observed along the coast, and the following settlements have been established in a line from north to south; Holsteinburg in 1770, Zukkertoppen or Sugarloaf, so called from a singular conical mountain in its vicinity, founded in 1755 in a dreary barren country; and New Hernnhut, the first settlement of the Moravian brethren, who have now erected a large dwelling-house of stone. Separated from this by some high hills, is Godthaab, founded in 1723 by the venerable Hans Egede, as the first station for the mission and trade. It is situated on the side of Baal's River, in latitude 64° 10′ 5″, and longitude 51° 42′ 15″ west, and is at present the residence of the governor of South Greenland. We shall afterwards mention the difficulties experienced by Egede in establishing this colony; but the number of others now rising up along the coast, and the success of his followers in converting the natives, prove that his labours have not been in vain. The inhabitants were formerly more numerous, but they have never recovered from the diminution occasioned by a dreadful attack of smallpox in 1733. Baal's River, as it is called, is only one of the largest of the firths which here penetrate the land. It is studded with islands, and after running sixty-four miles into the interior, divides into two arms, one of which extends nearly due north, at a right angle to its former direction, and seems to communicate with some large lakes. Both branches are bounded by the glacier, which here, as in other places, fills the centre of the land. On the shores of that part of this fiord, named Ujaraksoak, the best potstone, of which the Greenlanders form their lamps and kettles, is found; and in this neighbourhood also occur numerous remains of old Norwegian buildings.

The coast southward of this point maintains its former character, and there are no settlements till in 63° 4′ we arrive at that of Fiskernes, four leagues from which is Lichtenfels, a station of the Moravians, founded in 1754. Between this and Frederick's Hope, in latitude 62°, is one of the largest iceblinks on the coast, whose dazzling reflection is visible far out at sea, gleaming like the northern aurora. The fragments from this glacier have completely closed the adjoining fiord, and when piled up by the waves form a magnificent bridge between the mainland and the adjoining islands. This bridge, eighteen miles long and four or five broad, consists of a series of arches from sixty to a hundred and eighty feet high, under which, though the falling fragments threaten instant destruction, boats frequently sail into the bay. The colony was founded in 1742, and the place resembles some of the Norwegian harbours, though the hills are darker and more destitute of vegetation. Here, in a dreary room or closet, the missionary Otto Fabricius spent his winters collecting materials for his Fauna and Lexicon, whilst during the summer he traversed the coasts in his kayak, which he had learned to manage with all the dexterity of a native. The fiord Sermeliarsuk, southward of this, is supposed to be that usually named Frobisher's Straits, and soon ends in the glacier, though in the old charts it is represented as extending across the whole land. A strong current is, however, said to set out of it, carrying into the sea immense quantities of beautiful semi-transparent bluish ice. Nearly in latitude 61° is the large uninhabited island of Nunarsoit, the coast of which, usually intrenched in ice, presents so melancholy a view of barren rocks, that the old navigators, accustomed though they were to scenes of terror, named it the Cape of Desolation. Near this commences the district of Juliana's Hope, where are the most numerous remains of the old Icelandic colonies yet discovered, and on this account supposed by Egger and Graah to be the seat of the former East Bygd. The coast here is a perfect laby-

rinth of islands and firths, and is still very imperfectly explored. But though this part of the country is more infested by ice than that farther north, this settlement is the most flourishing in Greenland, and its inhabitants constitute now about one-third of the whole population. It was founded in 1775 by Anders Olsen, whose descendants still reside there, subsisting, like the colonists of old, amidst the ruins of whose dwellings his residence was erected, by feeding cattle, or by the fisheries. It lies in the centre of the district of the same name, near a lake abounding in salmon and other fish, has a good harbour, and from some trials that have lately been made, there are hopes that the potato may be cultivated with success. Somewhat farther south is Lichtenau, a Moravian mission, with a church and houses built of stone far superior to those usually found in that country, and surrounded by numerous ruins of the Icelandic settlers. The island of Sermesoak, in the vicinity, is filled with lofty mountains covered with perpetual ice, from which sharp naked peaks project, like the towers and spires of some old castle. The extremity of this island is usually named Cape Farewell, but the true situation of that promontory is nearly thirty-six miles farther south. The only other stations on this coast are Nennortalik or Bear Island, where the Greenlanders of the neighbourhood used to bring the skins of the white bear, and of white or blue foxes, and other articles, to exchange for European commodities; and Fredericksthal, a Moravian settlement, the most southern situation inhabited by Europeans. It was founded in 1824, and when visited by Graah, already numbered 400 members, who were constantly increasing, as the inhabitants of the eastern coast every year flocked thither to enjoy the instructions of Mr Kleinschmidt, who lived among the natives like a father with his children. This venerable old man had already laboured for the instruction and improvement of the Greenlanders nearly forty years, and as he is perfectly familiar with their language, not without success.

The only remarkable place farther south is Cape Farewell, situated on an island detached from the mainland, and surrounded by many other smaller ones, frequented in the spring by the fishermen, who there procure a great number of seals. The firth which separates them from the shore is about five miles wide, and by Graah named Prince Christian's Sound. A rapid current runs through it, and masses of floating ice covering its surface, render the navigation extremely dangerous.

Our acquaintance with the eastern coast is still more limited, being confined to those parts described by Scoresby and Graah, who almost alone, in modern times, have been able to reach its icy border. The observations of the former were made in a very high latitude (69°-75°), whilst the researches of the latter were confined to the portion below 65¼°, leaving nearly four degrees altogether unknown. The expedition, of which he had the charge, was fitted out by the Danish government, for the purpose of deciding the question regarding the situation of the old Icelandic colonies. Sailing from Copenhagen in March 1828, he arrived in Greenland at the end of May; but spent the remainder of the season in surveying the district of Juliana's Hope, and in making preparations for his journey the following summer. He left Nennortalik for the east coast on the 21st March 1829, but owing to the ice, which often detained him several days at a time, did not reach Kikkertak, at the extremity of Prince Christian's Sound, till the 1st of April. Here he was confined twenty-five days in almost total inactivity, the ice remaining completely jammed up to the shore; and here, too, his troubles with the natives who accompanied him commenced, as the hunters, who were expected to procure provisions for the rest of the party, were not able to support themselves. On the 26th April, he left this firth, and with great difficulty, owing to the laziness of the women who rowed the boat, reached Alluk, an island formed of two mountains, which enjoys a tolerably luxuriant vegetation, and on which is held an annual fair. On the 30th, he arrived at Nennectsuk, where he lay icebound for

three weeks. This place has evidently been inhabited at a former period, as they found many houses containing drift-wood of red and white pine, and graves, near which were the hunting instruments of the deceased, to enable him to pursue his employments in the land of spirits. At Ivimiut, where he stopped on the 23d May, the inhabitants were more cleanly in their persons than those on the western side, and remarkable for their clear complexion, regular features, and oval-shaped heads. The coast, northward from this, was lined with glaciers, behind which rose a lofty chain of mountains, on whose precipitous sides, where no snow can rest, curious purple-coloured strata were seen diverging from the summit to the icy base, intersected by arch-formed layers, supposed from the blue tint to contain potstone. Near this locality one of the Greenlanders had a narrow escape from a bear, which came upon him when sleeping in the open country. He was only awakened by its breathing close to him, in time to escape to his canoe, whence he killed it with his arrows. This adventure procured him great favour with his countrywomen, who were now all anxious to obtain him for a helpmate, though formerly he had been refused by them all. On setting out on this expedition, each of the men had chosen a lady in the party as his companion, but this poor fellow had been rejected by all as a Nellursok, "heathen or ignoramus." He took his revenge, by making choice of a superannuated beldame, the ugliest of the whole party.

At Taterat, where the natives have little in their outward appearance in common with the Esquimaux race, they found an iron cannon about sixty-five inches long, which had probably been part of the wreck of some whaler lost on this coast. Near that place is a singular grotto, in which is a remarkable harmonic echo, repeating the lowest sounds, in solemn tones, like a distant funeral-dirge or the wild music of the Æolian harp. Even the sea-birds, frequenting it in flocks of thousands, appeared to take pleasure in hearing their own shrill cries re-echoed from the vaulted rocks. On the

23d June, Graah parted with two European companions who had hitherto attended him, and proceeded along the coast in a single boat. Four days afterwards, he passed one of the largest iceblinks he had yet seen, being above a mile long, and rising perpendicularly from the sea about 600 feet. It was full of huge gaps and fissures, and at the same time completely undermined by the waves. Off Nektoralik, a lofty, black promontory frequented by thousands of sea-fowl nestling in its inaccessible cliffs, are numerous snow-free islands rising into conical peaks. These, by a curious effect of refraction, were elevated much beyond their actual height, and had each an inverted image of itself over it in the air, continually rising and falling. On the 2d July, he reached Nunarsoak, a rocky country, but free from glaciers, where his eyes, almost destroyed by the constant glare from the snow, were refreshed by the sight of some mountains covered with dwarf-willow and birch. This was also the case at Griffenfeldt's Island, consisting of a single mountain, 3000 feet high, and abundantly covered for more than a fourth of its height with black crakeberry, whortleberry, and other bushes. Northward from this is a large island named Skioldunge, separated by a narrow channel from the mainland, in which it is almost enclosed. On the continent, nearly opposite its extremity, is Ekallumiut or Queen Maria's Valley, one of the most delightful spots seen by him on the whole voyage. Considerable fields extend on both sides of a cove, covered with dwarf willows two feet high, juniper bushes, black crakeberry and whortleberry interspersed with a fine species of grass, much burnt by the heat of the sun, except near the rivulets which intersect the plain in every direction. At the end of the cove is an extensive valley, adorned with various wild flowers, particularly the sweet-smelling lychnis, and divided by a brook abounding in char, which has its origin in the glacier. But the characteristic features of Greenland scenery are not wanting even in this summer paradise; about two or three hundred paces from the sea,

the cliffs rise almost perpendicularly far beyond their usual height, the clouds seeming to rest on their snow-clad summits, whilst down the ravines on the sides, huge masses of ice were every moment precipitated with a noise like thunder. In this really beautiful retreat the natives from the surrounding country assemble some days every summer, feasting on the char and wild berries, and spending the night dancing to the tambourine.

Farther north he passed an extensive iceblink, the Colberger Heide, the perpendicular walls of which line the coast for many miles, and soon after, a quadruple series of icebergs of immense height, stretching out into the sea from the mouth of a fiord. From this place both the mainland and islands preserve their former character, the vegetation on Sneedorff's Island only being richer than any he had formerly seen. Leaving on the 24th July, he reached an island which he named Turn Back, as the ice precluded all his endeavours to proceed farther. This place, in latitude 65° 14′, was the utmost limit of his journey, for, after remaining in its vicinity till the 21st August, with no prospect of the ice opening, he returned southward to look for winter-quarters. These he fixed at Nukarbik, in 63° 22′ N., where, having spent some time in collecting provisions in the vicinity, he took up his abode during the dark months.

In the summer of 1830, he set out with the intention of penetrating farther north, but his success on this occasion was even less than before. After remaining fifteen days shut in by the ice on some small skerries under the Colberger Heide, he was obliged to turn at a lower latitude than the previous year. In the first part of the voyage his people were exposed to great privations, their provisions having been all exhausted, and a small seal, caught by one of the boatmen, "was devoured raw, hide, hair, and all." For six weeks their food consisted almost entirely of wild berries, and Graah, who was at last completely worn out, sick with fatigue and want of sustenance, ascribes the preservation of his life to the crakeberries. He reached Nennortalik in a state of complete

exhaustion on the 19th October, where the kindness of the residents soon restored him to health.

From latitude 65° 14′, where the observations of Graah end, to 69°, where those of Scoresby begin, the eastern coast of this vast country is, as already remarked, unknown. It has no doubt been seen by many of the navigators who frequent those seas, but the barrier of ice brought by the current from the Northern Ocean has prevented any of them from landing, or even approaching near its shores. Scoresby first came in sight of the land in latitude 74°, the most southern part being, he thought, the Hold-with-Hope of Hudson, and the most northerly Gale Hamkes' Land discovered in 1654. As seen from the ship it was mountainous, rugged, and intersected by bays or firths; and as it continued in sight at intervals for some time, he employed himself in laying down its position and giving names to the different parts of it, which are too uninteresting to be repeated here. After some time spent at sea in pursuit of whales, he, on the 19th July, again in latitude 71° 2′, approached the shore, which is dark and steril, the mountains rising from the beach in mural cliffs, consisting of an innumerable series of peaks, cones, or pyramids, with a rugged assemblage of sharp rocks jutting from their sides. The general height here, as at other places, was about 3000 feet, though some individual summits, as one of the Roscoe Mountains, exceeded this elevation considerably. Five days afterwards he landed in 70° 30′, on a rocky point named Cape Lister, and ascending to the top of the cliff, found neither soil nor verdure, but a pavement of loose quartz or hornblende stones, either naked or covered with black lichens. These, with a few tufts of hardy plants, were all the vegetation visible. On a small strip of beach he discovered the ruins of an Esquimaux hut, in which he found the remains of fuel, an arrow-head of bone pointed with iron, and other fragments of wood and bone, with which the hand of man had evidently been busy. From these appearances he con-

ceived it probable that the huts had been occupied so lately as that summer. It is also interesting to remark that he observed here horns and bones of the rein-deer, an animal, Graah affirms, not to be found on the part of the coast examined by him.* He afterwards landed at Capes Stewart and Hope, at both of which he noticed huts with similar remains, whilst the rocks near the former, in Jameson's Land, are remarkable, as consisting of the coal-formation, with a variety of organic remains. The number of inhabitants, too, seems to have been considerable, though none were seen, having probably migrated into the interior during the summer; while the grass and other plants were far more luxuriant than in any of the places visited by Graah. The country surveyed southward of Scoresby Sound, where these observations were made, had the common rugged appearance of the Greenland shores. He again sailed in a northern direction, and landed on Traill Island (72° 12′ N.), where similar vestiges of at least fifty summer huts were visible. This was the last place he landed at, though he examined a considerable portion of the coast in this neighbourhood, before the approach of winter compelled him to return home. The results of his researches are best seen on the chart; but they also brought to light many curious facts connected with the natural history of this island and its probable internal constitution. The proofs which he obtained of the existence of inhabitants in these high northern regions are also extremely interesting; and though none were seen, the utensils left at their dwellings indicate that they are similar in their habits to those who frequent the east and west coasts.†

Before concluding this description of Greenland, it may be necessary to notice the disputed question respecting the situation of the old Icelandic settlements. The

* This statement is rather doubtful, as one of the natives declared that they were met with there; and Major Sabine found horns newly cast on this coast, on the Pendulum Islands, lat. 74° N. Vid. Graah, p. 104, note. They also occur in Spitzbergen.

† Scoresby's Voyage to Greenland.

general opinion at present seems to be, that both the bygds, as they were called, were on the western coast; the east, which was the most populous, in the vicinity of Juliana's Hope, where there are many remains of old buildings, and where pieces of bells and other metallic substances have been frequently found; the other, farther north on the same coast, somewhere between the sixty-second and the sixty-seventh degrees of latitude, runic monuments having been observed as high as 72° 55′. The opposite opinion, which till lately was almost universally held, considered the former as situated on the eastern shore, directly fronting Iceland. We cannot enter at any length into this question, many of the arguments on both sides being of an abstruse nature, and very uninteresting to the general reader. We may however state, that the voyage of Graah, which has been regarded as settling the dispute, seems by no means decisive. The difficulties he had to encounter prevented him from surveying the shores with the requisite accuracy; his whole time and attention being required to enable him to push along from island to island, and from cape to cape, whilst the interior of the fiords, where the ruins of the colony might be expected to occur, were almost unvisited. The assertions of the natives, again, that such remains do not exist, must in a great measure go for nothing, as he himself admits that neither their testimony nor their knowledge is much to be relied on.* Even had they known of such places, their anxiety to get home and to avoid labour, with many other motives, might induce concealment. He also acknowledges, that even before going thither he "was thoroughly convinced that the East Bygd would not be found there;"† a state of mind not the best fitted to ensure success or encourage exertion. Whilst these things lessen the value of his evidence against its existence on the eastern coast, some facts stated by him tend rather to favour the opposite conclusion. For ex-

* Graah's Greenland, pp. 132, 135. † Ibid. p. 105.

ample, he saw natives whose features differed from those of their countrymen on the western coast, and more resembling the European.* The strange traditions, too, of a fierce and cruel race inhabiting the mountains, he found prevailing all along the coast.† From his account this shore seems equally fertile with the opposite one, and it is therefore not easy to assign a reason for the Icelanders, most of them from the north-west peninsula, neglecting the country in their immediate neighbourhood, and sailing many miles to another by no means preferable. Another difficulty attending this opinion is, the prevalence of the notion, which can be traced back to a very early period, that the colony was to be found there. Bishop Amund's voyage, in which some of the inhabitants on the eastern coast are stated to have been seen driving home their cattle, whatever credit we may attach to the fact related, proves at least that this was then the general belief, which could only have arisen from tradition, as the spirit of inquiry into the ancient history of these places had not yet awakened in Iceland. The fable, as Graah calls it, of Hvidsærk, a mountain in Greenland, and Sneefields Jökul in Iceland, being both visible at the same time from the middle of the passage, at least proves the existence of this opinion from a very early period.‡

The strongest arguments for the other supposition seem to be, the number of ruins on the western coast, and the

* Graah's Greenland, pp. 70, 73, 88, 115.

† Ibid. pp. 67, 90, 104.

‡ This may have been no fable after all; the distance from Sneefieldnes due west to Greenland is 396 miles, but in a direction a little north, which would still have been called west, it is much less, probably (for the coast is almost unknown) not more than 260 or 270 miles. Now, the last-named mountain, though it should not be seen from more than 80 miles, is yet, from the effects of refraction, often visible from the sea beyond the Westmanna Isles, a distance of more than 140 English (30 Danish) miles (Olafsen's Reise, th. i. p. 152); and Scoresby (Voyage, p. 106) saw some of the Greenland coast of an inferior height (Home's Foreland, 3500 feet) when 160 miles distant. This makes the fact stated at least possible; and Torfæus mentions that it only sometimes occurred (modo serenabit), p. 71.

entire absence, so far as is yet known, of any on the other shore.* But this latter argument loses much of its weight, when we consider the difficulty of discovering these ruins, even where they do exist. As Graah says, " one may search for them over and over again, if he have neither guide nor clue to aid him, without finding them, the greater number being so overgrown with heath and thickets as to be scarce distinguishable from the rocks." And in another passage he mentions, that " many a person has lived a length of time in Greenland without seeing any of the antiquities that surround him."† For these reasons we are disposed to regard this point not only as still undecided, but as one on which, without more evidence, it would be premature to come to any conclusion. Before a decisive opinion could be formed, it would be necessary to compare the accounts contained in the old descriptions of the bygds, whether printed or in manuscript, with the present aspect of the country, due attention being at the same time paid to their proper dates. This will now be rendered easier by the publication of the " Historical Monuments of Greenland," a work comprising all the ancient documents on this subject, which has been commenced by the Society of Northern Antiquaries at Copenhagen.

* In a late number of the Annales des Voyages (November 1837, p. 236) it is mentioned on the authority of M. Zahrtmann, captain of a Danish vessel, that the natives had informed the missionaries at Frederickstad of a stone with an inscription on it, found by them on the island Idloarsut (lat. 63°). Not being noticed by Graah in his voyage in 1830, it is thought to be of recent erection, probably by the crew of the mysterious Lilloise.

† Graah, pp. 156, 165.

CHAPTER VIII.

History of Greenland.

Discovery by Gunnbiorn—Colonized by Erik Raude—Conversion to Christianity—Leif—History of Vinland—Biarno—Thorwald slain by the Skrellings—Thorfinn—Other Voyages thither—Vinland America—Subjugation of Greenland—Government—Bishop's Voyages to the North—Loss of Colonies—Erik Walckendorff attempts to recover them—Voyages of Heinson, Davis, Lindenow, Danel, &c.—Mission of Hans Egede—Difficulties and Success—Egede's Return Home—Benefits of the Missions—Natives—Origin and Appearance in the Country—Ancient Inhabitants of America—Character—Vanity—Morals—Religion—Conjurors—Government—Sciences—Language—Food—Houses—Tents—Dress—Boats—Family Relations—Amusements—Burials—Employments—Commerce—Conclusion.

The history of the colonization of Greenland is not merely of importance from its consequences, but also interesting as a vivid picture of the life and manners of that remote period. The same restless and daring spirit of adventure, the same insatiable thirst for revenge, which led many of the first colonists to Iceland, compelled others to take refuge on the still more inhospitable shores of Greenland. Gunnbiorn, son of Ulf Krake, a celebrated Norwegian rover, when sailing along the west coast of the former, at a greater distance from the land than was customary at that time, discovered some small islets or skerries, to which he gave the name of Gunnbiornarsker. These were rocky and uninhabitable, but on the same voyage he observed, still farther towards the west, a country of greater extent and more inviting aspect, on which however he does not appear to

have landed, nor even to have approached very near it. No farther endeavours to explore this region were for some time made; till Erik Raude, or the Red, being compelled to set out in quest of a new abode, turned his thoughts thither. His father, Thorwald, a jarl of the province of Jadar or Listen, had fled from Norway in consequence of a murder committed by him and his son, and sailing to Iceland, had settled at Drangr in Hornstrand. After the death of his parent, Erik removed thence to Vatnshorn, near Haukadal, where his violent temper soon found occasion to display itself. His servants endeavouring, probably by magical arts, to turn aside a hill of sand which was wasting his fields, were put to death by his neighbour, Eyolf Saur. This enraged him to a great degree, and he soon after killed both Eyolf and Rafn, who had incited him to the action. For this crime he was banished the district, and retired to Yxney, an island in the Breida Fiord, where a dispute soon arose between him and Thorgest about the sacred pillars (setstokkar) which he had lent to the latter. The quarrel, as was usual, ended in bloodshed; and other chiefs joining both parties, the civil authorities at last interfered, and Erik was condemned to three years' banishment by the Thornes-Thing. His friends concealed him for some time, till a ship being prepared, he set sail, declaring his intention of going in search of the land formerly seen by Gunnbiorn, and promising to return with tidings if he discovered it. Sailing westward from Sneefieldsnes in 982, he soon came in sight of one of the Greenland Alps, named Mid Jökul, near the place afterwards known as Blaserkr. Avoiding this coast, which seemed rugged and dangerous, he sailed southward, looking out for some place where he might settle, till, turning towards the west round the Hvarf, he passed the first winter on Eriksey, near the middle of what was afterwards called the Eastern Bygd or Colony.* Next summer he entered

* This is the account of Torfæus; many differences occur in the interpretation of the original passages, and even the reading of that

the firth or sound, which he called Erik's Fiord, and explored its coasts, wintering on several small islands named Erik's Holm. According to some acounts he returned the next summer to Iceland; but as the term of his banishment had not then expired, those are probably more correct which represent him as spending another season abroad. He landed first in the Breida Fiord, and the succeeding spring was defeated in single combat by his old enemy Thorgest, after which they were reconciled. He then went back to Greenland, which was the name he had given the new country, with the view of inducing others to accompany him, where he built a town called Brattahlid on Erik's Fiord. By his representations of its fertility he succeeded in his object, though of twenty-five vessels that left Iceland along with him only fourteen reached their destination, the others having been either wrecked or driven back by a tempest. Those who arrived safe placed their habitations in the vicinity of Erik, and near the same firth, naming them either after themselves or from some local peculiarity. This event happened in the year 986, and many colonists afterwards repaired thither.*

Seldom has a revolution of such importance been effected with so little opposition as the first introduction of Christianity into Greenland. In the autumn of 999, Leif, a son of Erik the Red, having made a voyage to Norway, attracted the notice of Olaf Tryggvason, king of that country. Olaf having in early life, whilst wandering about as an exile, become a believer in the gospel,

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in the Landnamabok is doubtful. In the text, it is "nær midre enn vestri bygd," that is, "nearer the middle than the western bygd;" other copies have "nær eystri bygd," "near the eastern bygd." The word Hvarf means a place of turning, a promontory, here supposed by Graah to be Cape Farewell; and Bygd, which so often occurs in these accounts, is an inhabited place, Ubygd, an uninhabited one: it is derived from the Icelandic byggia, to build; a word still common in the Lowland dialects of Scotland both as a noun and verb.

* Torfæus, Gronlandiæ Antiqua (Havniæ, 1715), pp. 9-17, 241. Landnamabok, p. 100-103. Arn. Jon. Spec. Island. p. 146. Claudius Lyschander places the discovery in A. D. 787.

was, after he ascended the throne, extremely zealous for the propagation of his new faith. For this purpose he made many journeys through his dominions, attended by his priests and a chosen band of Berserker, purposing to employ these last against such as the former should fail to convince. It was on his return from one of these excursions that he met with Leif and his pagan companions, on whom the arguments of the king, and the excellence of the Christian religion, had a more beneficial influence than the harsher measures used with his own subjects. The son of Erik was converted, and returning in the summer of 1000, became the instrument of diffusing the truth through his adopted country. He was accompanied by a priest and some other missionaries, and having, during his voyage, met with some shipwrecked mariners who had preserved their lives by clinging to planks, he carried them with him to Greenland.* This humane conduct of Leif, so contrary to the barbarous spirit of the times, procured for him the surname of Hin Heppne, or the Fortunate, but excited the anger of his father, who also reproached him for bringing a wicked and dangerous man, as he called the priest, into the colony. Erik, however, yielding to the arguments of his son, soon became a Christian, and having been baptized, all the other inhabitants shortly after followed his example. The way for this change was probably in some measure prepared by the influence of those among the original settlers, who had been converted before their arrival in the country. One of these, a native of the Hebrides, was celebrated as the author of a poem called the Hafgerdinga Drapa, a strophe of which, imbued with the pious sentiments of its author, is still preserved.†

The country inhabited by these colonists was, as far as we can learn from the notices of the old authors,

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* Others place this incident in his voyage to Vinland, which we have soon to mention.

† Torfæus, Gron. Ant. ch. xvii. p. 127-130. Arn. Jon. Spec. Isl. p. 147. This verse may be found in the Landnamabok, pp. 104, 377. The hafgerdingar are a species of whale.

similar in climate and productions to what it is at present. It was divided into two districts or bygds by an extensive desert, and six days were required to pass from the one to the other in a six-oared boat. The East Bygd was always the more populous, and, besides two monasteries and the bishop's see of Gardar on the Einars Fiord, where there was a cathedral dedicated to St Nicolas, contained twelve parishes and 190 farms. Brattahlid, on Erik's Fiord, was first the residence of Erik Raude, and afterwards of the Governor or Lagmann. The West Bygd had only four parishes, and about 100 farms. The ancient authors mention the names and order of the different fiords on which these settlements were founded, but it could be of no use to repeat the catalogue here. Many endeavours have been made, in recent times, to assign to these their proper situation, but besides the great difference between those who station all the colonies on the west, and their opponents, there are many others of minor importance. The writers who place the East Bygd in Juliana's Hope, generally consider the ruins on the firth of Igaliko as those of the episcopal residence of Gardar; whilst Biarney, at the farthest extremity of the West Bygd, is regarded as the present Disco Island.*

Soon after this period the northern annals introduce the discovery of America by the Greenland colonists. Heriulf, one of the companions of Erik the Red, and his son Biarne, were in the habit of trading to various surrounding countries, usually spending the winter at Eyrar in Iceland. In the year 986, the latter, on returning from a voyage to Norway, learned that his father had departed for the lately discovered country. Thither, though the autumn was already far advanced, he resolved to follow him, guided only by the stars, and the reported situation of the land, being determined to spend the following winter, like all the preceding ones,

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* Torfæus, Gron. Ant. c. i. v. vi. vii. viii. x. Graah's Greenland, Appendix, p. 155-176. See above, chap. vii. p. 251.

with his parent. On his passage he was overtaken by a storm, and driven far to the south-west, where he saw a low undulating region overgrown with wood, and very unlike Greenland, as it had been described to him. Here, therefore, he did not land; but, sailing northwards, passed a second country, and then a third, mountainous, and covered with icebergs. Without stopping at any of these, he continued his voyage, and soon after reached Heriulfnes in Greenland, where he found his father.

During the winter he spent here, the fame of his discovery was spread abroad, and incited Leif, the son of Erik, to rival his relation in the discovery and colonization of new regions. Some time, however, elapsed before he could put this plan into execution, and it was only in the year 1000, that, having purchased Biarne's ship, and equipped it with thirty-five men, he set sail. The first land seen was stony and barren, with snow lying among the rocks, and was named by them Helluland. The next, more like that first observed by Biarne, was called Markland, or Woodland, being level, covered with wood, and surrounded by cliffs of white sand. Sailing onwards they came in sight of an island lying to the east of the mainland. Landing near it they found the soil fertile, the air mild, and numerous shrubs bearing sweet berries. They then sailed up a river, stored with salmon and other fish, till they came to a lake from which it issued; and, having erected huts in the vicinity, they spent the winter, which was milder and the days longer than in Greenland. An ancient writer says that on the shortest day the sun was above the horizon from *dagmal* to *eikt*, that is, from half-past seven A. M. to half-past four P. M., which makes the day equal to nine hours, and consequently the latitude of the place rather more than 41°, or nearly that of New York.*

One day whilst residing there they missed one of their

* The correct latitude is 41° 24′ 10″, or a little north of Nantucket, the character of which agrees with the description of the Northmen.

number, a German, of the name of Tyrker (Dietrich or Dirk), and on going in search of him, they met him coming out of a wood leaping and dancing as if frantic. On his friends inquiring the cause of this joy, he at first answered them in German, which they did not understand, and then showing them some fruit, told them in the Norse tongue that these were grapes, from which wine was made in his father-land. From this occurrence they named the country Vinland, and having loaded the ship with wood, and collected a quantity of grapes, they returned in the spring to Greenland.

The beauty and fertility of this new land, it might have been thought, would have attracted to it all the colonists from those barren and dreary shores where they had fixed their dwellings. But this was not the case; and even Leif did not again return, leaving his brother Thorwald, who sailed thither that year with the same crew to explore it more minutely. He spent that summer and the next in examining the land to the east and west, and found the coast protected by islands, beautifully wooded almost to the water's edge, but with no trace of inhabitants. On the third year they continued their investigations, and when repairing their ship, which had been damaged, set up the keel on a promontory, hence called Kialarnes. Near this point Thorwald landed, and, delighted by the appearance of the country, exclaimed to his companions, "Here it is beautiful, and here I should like well to fix my dwelling." But whilst still engaged in surveying the country, they were surprised by finding on the sandy beach three small canoes covered with skins, under each of which three Skrellings were concealed. The Greenlanders seized on these strangers, and with wanton cruelty put them to death, except one who contrived to escape in his boat. Punishment for this crime was not long delayed, for, one night soon after, their sleep was broken by a voice warning them to arise and save their lives. They started up and found themselves attacked by a fleet of these savages, who poured in upon them a flight

of arrows. Protected by the battle-screens they had raised on the ship's side, they at last repulsed their diminutive opponents, to whom they contemptuously gave the name of Skrellings (chips or parings). But Thorwald found that they were not so despicable as was at first imagined, for a wound he had received from them proved mortal. When dying he said to his companions, "I now advise you to prepare for your departure as soon as possible; but me ye shall bring to the promontory where I thought it good to dwell; it may be that it was a prophetic word that fell from my mouth about my abiding there for a season; there shall ye bury me, and plant a cross at my head, and also at my feet, and call the place Krossancs in all time coming." With these affecting words he expired, and his associates having complied with his request, returned the following season (1005) to Greenland.

The melancholy though in some measure merited fate of Thorwald did not prevent another brother, Thorstein, from engaging in the same adventurous undertaking. He sailed for Vinland, accompanied by his wife Gudrida, his whole family, and twenty-five men for his crew, with the intention, it is said, of bringing home his brother's body, though, judging from the character of some of his followers, more probably with the design of settling there. He was, however, driven by a storm on the western coast of Greenland, and compelled to remain during the winter in an uninhabited district. Want and fatigue proved fatal to him and to some of his crew, and it was not till the next spring that Gudrida returned home, carrying his dead body along with her.

A fourth adventurer in this perilous path now appears. According to the story, whilst Gudrida and her friends were watching her husband's corpse, the dead man rose up in his bed and foretold that his wife should marry a stranger, and settle with him in Vinland. In due time the prediction was accomplished. Thorfinn Karlsefne, a wealthy Icelander, descended from Ragnar

Lodbrok, arrived in Greenland, and espousing the widow of Thorstein, thus inherited his right to Vinland. He sailed thither with her in 1007, having three ships, and a larger colony than any of the preceding, consisting of a hundred and sixty men, with all necessary tools, furniture, and cattle, for forming a settlement. They seem to have proceeded farther south than on former occasions, and at last came to a land where they found grapes and ears of corn (maize) growing wild. They set up their winter dwellings in a bay where the Skrellings soon found them out, and, seemingly ignorant of the former transactions of the Northmen with their friends, bartered skins and furs for small strips of cloth, and at the last for milk-soup, which they preferred to all other merchandise. The lowing of a bull belonging to the colonists at once put them all to flight; some rushed to their canoes, others fled for shelter to the huts of the strangers, where the foreign appearance of the inmates proved an equally terrific object. Some small presents, and particularly milk, with which they were still extremely delighted, reconciled them to their guests. Thorfinn had wisely prohibited his followers from selling them arms on any conditions; but one of them stole a battle-axe, whose power he resolved to try on one of his companions. To the horror of the whole assembly, who had never seen such an effect follow a blow with their wooden hatchets, the stroke proved fatal, when a third, whose commanding air and manner marked him for a chief, seizing the dangerous weapon, threw it indignantly into the sea.

Thorfinn remained here till the following winter, at the commencement of which he was again visited by an immense fleet of the natives, who now attacked the Northmen by a discharge of missiles so galling, that they betook themselves to flight, and were only saved from total defeat by the heroism of Freydisa, a daughter of Erik the Red. Reproaching her countrymen for fleeing from such miserable caitifs, she seized the naked sword of one of them who had been slain, and advanced

against the Skrellings, who fled terrified to their canoes. This adventure disgusted Thorfinn with his new habitation, and having spent a third winter farther north, he returned to Greenland, enriched with the valuable furs and other articles obtained in his traffic with the natives, whence he afterwards went to Iceland, where he lived in great magnificence. After his death Gudrida, who, with the rest of these early adventurers, was a Christian, went on a pilgrimage to Rome. Returning from this long journey, she spent the remainder of her life in a nunnery, which had been built by her son Snorro, who was born in Vinland. From this chief an illustrious race descended, his grandson being the learned Bishop Thorlak Runolfson, the principal author of the old canon law of Iceland, and it is probable also the historian of these voyages.

The wealth acquired by Thorfinn Karlsefne in Vinland induced others to proceed in the same tract. Helge and Finnboge, two brothers from Iceland, went thither in 1011, accompanied by Freydisa, in three ships containing thirty men each. The bad conduct and deceit of this designing woman brought ruin on the whole undertaking, and she is said to have at last prevailed on her husband to murder their two friends, with all their attendants. Leaving the scene of her crime, she returned to Greenland; but the infamy of her wicked deeds followed her there, and she ended her wretched life abhorred by all.

The subsequent history of Vinland is short and unsatisfactory. The connexion both of it and the parent country with Iceland now became less intimate, and the notices of their affairs in the works of the annalists are more distant and meagre, till we at last lose sight of them altogether. In 1059, an Irish or Saxon priest named John, who had been a missionary in Iceland, is said to have gone thither with the same laudable intention, and to have been murdered by the heathen. Erik, sometimes called the first bishop of Greenland, is also reported to have sailed for this land in 1121 with

the design of reclaiming the settlers, who were still heathen; but of his success no record remains, and it is very doubtful whether he ever arrived there. The last notice respecting America is an account of a voyage to Markland in 1347 by a ship from Greenland, which, on its return, was driven by a storm to Straum Fiord in West Iceland. The scanty notices of this adventure only prove, that even till the middle of the fourteenth century an intercourse with that distant settlement was still maintained. The ultimate fate of the colonists is thus buried in obscurity, though it is probable that, cut off from intercourse with their countrymen, they gradually amalgamated with the savages around them, which would more easily happen, as most of them seem to have been idolaters. They may, however, have perished in those movements among the inhabitants of Northern America, which appear to have occurred about this time, and during which the Skrellings were forced northwards into Greenland by more vigorous and warlike tribes. The traces of this colony on the coasts of America are few and unsatisfactory; nor is this wonderful when we consider their limited numbers, and that their mode of architecture was very far from being of the most durable nature.

Besides these more direct voyages, there are some others mentioned, in which the Northmen are supposed to have reached the American shore, and which, as connected with the above history, and confirming its truth, we shall here shortly notice. The powerful Icelandic chief Are Marson was, in 983, driven by a storm to a country where he was baptized, which is supposed to be Hvitramannaland, or land of the white men, sometimes named Irland It Mikla or Great Ireland, so called from an Irish Christian people who were settled there. This is believed to have been the coast of North America, south of Chesapeak Bay; and among the Shawanese Indians, who formerly dwelt in Florida, there is a tradition that their country was inhabited by a white people in possession of iron instruments. Gudlief Gudlaugson

was, at a later period, when returning from Ireland, carried by a very strong north-east wind to an unknown region. They were surrounded by a crowd, who spoke a language resembling Irish; and were deliberating whether to kill them or make them slaves, when they were interrupted by the approach of an old gray-haired man, of a distinguished appearance. He addressed Gudlief in the Norse language, and, learning that he was an Icelander, asked many questions about his acquaintance there, particularly Thurida of Frode and her son Kiartan. From this he was thought to be Biörn Asbrandson, a celebrated Jomsvikingr, who had been compelled to leave Iceland owing to an illicit connexion with the lady just named. After consulting his companions, the white chieftain told the Northmen that they were at liberty to depart, advising them to make no delay. He gave them, at the same time, a gold ring for his beloved Thurida, and a sword for Kiartan, who was believed to be his own child. Gudlief found his way first to Dublin, and then to Iceland. From these accounts it has been supposed that there was occasionally an intercourse between this part of America and the western countries of Europe, especially the Orkneys and Ireland.

Such is the history of Vinland given us by the Icelandic historians, which is interesting, not merely as connected with the countries of which we are now treating, but as proving that America was known to Europeans five hundred years before the Genoese mariner set foot upon its shores. No one can now represent this account, coming to us as it does through so many channels, as a fiction introduced into the old records. Its truth is also confirmed by the testimony of Adam of Bremen, nearly a contemporary, who says "the Danish king (Svend Estrithson) also told me of another island discovered in that sea, called Vinland, from the quantity of grapes there found, and also fruitful in corn." * To admit that an interpolation of such an

* De Situ Dan. cap. 246.

extent has taken place in these chronicles would destroy all confidence in what they relate of other lands, and thus undermine the whole structure of northern history for many ages. The situation of Vinland has also given rise to many disputes among those who allow the truth of its discovery, some placing it on the islands near Cape Farewell, in the southern part of Greenland, and others in Labrador or Newfoundland. But the productions of the country, the length of the day, and the appearance of the coast, which coincide in a remarkable manner with the descriptions of recent travellers, fix it to the United States. In this view of the subject, Helluland is Newfoundland, even yet remarkable for its naked rocky *barrens*, where not a tree or shrub can grow. Markland, with its forests and white sandy cliffs, is Nova Scotia. Vinland is thus the country near Rhode Island, Kialarnes being Cape Cod, Krossanes, Gurnet Point, and the *Hop*, where Thorfinn Karlsefne erected his dwellings, the present Mount Hopé.*

About this time (1023) the Greenlanders are said to have become subject to Saint Olaf of Norway, but we have no information as to the manner in which this event happened, or of the conditions mutually agreed upon. It appears, however, to have been more nominal than real, consisting in the payment of some small tribute of the peculiar productions of the country, and to have soon

* The publication of the Antiquitates Americanæ by the Royal Society of Northern Antiquaries at Copenhagen supersedes all the more ancient works on this subject, and may be considered as setting the question as to the truth of this discovery at rest. It contains a collection of the original documents, with Danish and Latin translations, numerous notes and disquisitions, and an abstract of the historical evidence in English. This last will be found in the Journal of the Royal Geographical Society of London, vol. viii. (1838), p. 114-129. Compare also Torfæus, Vinlandia Antiqua. Murray's Discoveries in North America, vol. i. p. 14-23. Wheaton's Northmen, p. 22-31. The inscription on the Assonet-rock, considered as runic by Finn Magnusen, is far from being proved to be such. Some American writers, from comparing it with an extensive series of Indian hieroglyphics, think it identical in point of general character with these. See Amer. Biblic. Rep vol. xvii. (1839) p. 430.

ceased, when the Norwegians, involved in other affairs of more importance, did not think it of consequence to enforce obedience. Some of the chronicles do not mention this defection, but all agree that the Greenlanders were left very much to themselves, living in a manner conformable to the nature of the country, governed by the Icelandic statutes, which they had brought along with them, and having, like the people of that island, one supreme ruler or judge. His authority, and that of the laws, were however, in the early period of the settlement, frequently set at nought with impunity. Solemn engagements between private individuals, by which the one became bound to avenge the injuries or death of his associate, were very common, and the history of Greenland consists almost entirely of the tragical incidents they produced. The superstition, too, of the nation leading them, even after the worship of the heathen deities was abolished, to admit their existence and power, and to believe in the prophetic meaning of dreams and visions, increased the disorderly character of the age. He who had neglected to avenge the death of his friend, saw in the visions of the night the angry frown of Thor or Odin reproaching him with his degeneracy, or heard the feeble voice of his departed companion telling of his broken vow, and crying out for vengeance. Instigated by such feelings, the authority of the judge was not merely disregarded or despised, but frequently insufficient to preserve his own person from the destroying hand of the assassin.*

Although Christianity had now been established more than a century in Greenland, no bishop had yet been appointed. About the year 1122, however, Sock, a son of Thorer, who is thought to have been a descendant of Erik Raude, being jealous for the honour of his country, called an assembly of the people, where he represented the advantage of their having a bishop to

* Torf. Gron. Ant. pp. 151-193, 242. Arn. Jon. Spec. Isl. p. 149-153.

themselves, like all other nations, with such eloquence that it was unanimously resolved to send an embassy to Norway to ask one from King Sigurd. This office devolved on Einar, the son of Sock, a man of a bold, violent temper, and great authority. He took with him a number of narwal's teeth, seal-skins, and other productions of the country, as presents to the nobles, and on his arrival obtained his majesty's consent, who also recommended a person to fill the office. This was Arnald, a priest distinguished for his character and learning, whom the monarch entreated to accept the charge. After urging many reasons for refusing this honour, especially the distance from all advice and assistance, together with his inability to command such fierce and barbarous minds by the powers of persuasion alone, he at last consented to go, on Einar promising to protect to the utmost of his ability the rights and possessions of the church. Arnald, provided by his royal patron with letters of recommendation, visited the Archbishop of Lund, who consecrated him to his office, and, returning to Norway, departed with Einar, who had become a great favourite with the king, to whom he had given a Greenland bear. They were driven to Iceland by a storm, where they remained during the winter, and next summer arrived at Erik's Fiord. The bishop chose Gardar in that neighbourhood for the site of his episcopal residence, and was highly honoured by all the inhabitants, especially by old Sock and his son.*

At the same time that this prelate left Norway, another ship, commanded by a person named Arnbiorn, sailed from the same port bound on the same voyage, but under less favourable auspices. The tempest which compelled the former to take refuge in Iceland cast the latter

* Torf. Gron. Ant. cap. 26, p. 217-222. Arn. Jon. Spec. Isl. pp. 147, 148. Erik, who is mentioned above as sailing to Vinland, is said to have been Bishop of Greenland. His consecration is placed in 1121, the year before the events related above, but, as he never reached that country, probably his appointment had not become known there.

on the uninhabited coast of Greenland, where the whole crew perished from cold or famine in a hut they had built on the side of a fiord. Sigurd Nialson, who was accustomed to frequent the desert parts of the country during the summer months for hunting and fishing, when about to return home in the autumn after the bishop's arrival, observed on the shore some remains of a fire and other traces of men. Obtaining the consent of his companions he explored the adjoining inlet, where at the mouth of a river they found two ships, and at a little distance a hut full of merchandise and decaying bodies. They destroyed one of the vessels, which was too much injured to be repaired, and, loading the other with the goods, returned home, taking with them the bones of its former owners, that they might be committed to consecrated ground. Sigurd consulted with the bishop about the disposal of the property, when it was resolved that the ship should be given to the cathedral where the bodies had been buried, and the commodities they had preserved divided amongst the finders according to the established custom. When this was known in Norway, Aussur, a nephew of Arnbiorn, sailed to Greenland to obtain possession of his uncle's property. Here he lodged with Arnald, who, however, refused to deliver up the ship, alleging that it rightly belonged to the church in consideration of the services rendered to its late owner; and, on his application to the judges, he was equally unsuccessful, Einar, who opposed him, insisting that the question should be decided according to the laws of the country. Enraged at what he considered an unjust decision, Aussur damaged the vessel, when the bishop complained to his friend, reminding him of the oath which bound him to defend the interests of the church. Einar, feeling this as a reproach on his honour, resolved to be revenged, and soon after, meeting Aussur, killed him with the blow of an axe. His friends in vain endeavoured to obtain redress for the murder, and being soon after joined by some other Norwegians, they determined to take by force what was denied them by law,

and, going in a body to an assembly of the natives where the assassin was present, one of them put him to death. A tumult arose in which several on both sides were slain before the strangers could find refuge in their vessels. Thither old Sock wished to pursue them; but others, more prudent, represented the doubtful result of the enterprise, the Norwegian ships being far larger than any of their own. A treaty was then agreed upon, when the Greenlander, although very unwillingly, had to pay a compensation to his opponents, as the number of the foreigners who had fallen exceeded the slain among his followers.

After this disaster the bishop, probably not relishing the rude manners of his flock, and deprived of Einar's protection, returned to Norway. He never revisited his diocese, having been raised to the see of Hammar by the papal legate Nicholas Breakspear, at that time in those northern parts. This was in 1152; but he had probably resigned his former charge at an earlier period, as we find his successor, Jon Knutr, consecrated two years previously. Such an occurrence, however, was by no means rare in the annals of that country, the irregular communication with Europe often leaving them many years without an episcopal superintendent, whilst at others a new one was sent out, the primate not knowing whether the former was dead or still survived.*

Knutr was succeeded in 1188 by another bishop, also named Jon, who died in 1209. In his time a Greenlander named Asmund Kastanrazr is reported to have sailed with twelve men from that country to Finmark, in a vessel joined together with wooden pins and the sinews of animals. Thence he went to Iceland on his way home, but after leaving it was never more heard of. Whatever we may think of the boldness of the undertaking, it gives no very high idea of the prosperity of the colony, where such vessels were common, and

* Torf. Gron. Ant. pp. 222-239, 243, 244.

men could be found to risk their lives in them on so perilous a voyage.*

Greenland was not reduced under complete subjection to the Norwegian monarchs till 1261, after which time the judge or chief magistrate constantly acknowledged their authority. In the autumn of that year some Norwegians, who had been four seasons in the colony, returned home, and told that the inhabitants had agreed in future to pay tribute to the king. They also consented to pay him a fine for all murders committed, whether in the inhabited or uninhabited districts, and even for those that took place beneath the pole,—a clause chiefly remarkable as showing the opinion they entertained of the extent of their country. This was in the reign of Hakon the elder; but, according to Claudius Lyschander, they immediately revolted, and his successor made no effort to reduce them to submission. He also adds that Erik Glipping, king of Denmark, indignant at the insult thus offered to the northern crowns, sent a fleet thither which reduced them again to obedience to his relation Erik of Norway. But Torfæus rejects this story, as founded on no authority, and inconsistent with other well-established facts.†

Five years later some clergymen of Gardar undertook a voyage of discovery to the north, during which they are supposed to have visited those remote regions which have lately been again made known by the daring expeditions of British navigators. At that time all men of any consequence in Greenland possessed large boats or ships, in which they were accustomed during the summer months to sail for hunting and fishing to the northern parts of the country named Nordrsetur, where, it appears, the ancestors of the present Esquimaux had not yet established themselves. Setting out from this high northern latitude, they were during several days driven before a south wind. When the fog which had

* Torf. Gron. Ant. p. 244.
† Ibid. pp. 246, 248-250. Arn. Jon. Spec. Isl. p. 149.

enveloped them for some time cleared away, they found themselves surrounded by many islands, on which were all kinds of prey, as seals, whales, and bears. They durst not land on account of these last, but thought they saw traces of the place having been formerly inhabited by Skrellings. They penetrated to the extremity of the bay, where they were surrounded by icebergs or glaciers as far as the eye could reach. The sun was above the horizon the whole night, and, from the account they give of its altitude, it has been computed that they had reached the parallel of 75° 46′, or a little to the north of Barrow's Strait.*

From this time the records of these colonies become more scanty and uninteresting. Cut off from the rest of the world by a wide and dangerous ocean, their connexion with it was only maintained by one or two ships which made an annual voyage from Norway or Iceland. No internal events of importance happened after this period, and the natives, never having been addicted to literature or the muses, which alone can preserve the memory of such obscure communities, have left almost no trace of their existence behind. The list of their bishops given below is nearly the sole memorial of their subsequent history, and it only now remains to point out the causes of their destruction and of the mystery that involves their fate.†

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* Antiq. Amer. Journal of Geog. Soc. vol. viii. p. 126. Torf. Gron. Ant. pp 28, 29. The data on which the above calculation is founded are very rude and uncertain. The Nordrsetur are supposed to be about Disco Island. Besides fishing and catching seals, they were also in the habit of collecting the drift-wood, which on the west coast is never found above this island, though most abundant far north on the east coast.

† Bishops of Greenland:—1st, Erik, 1121; 2d, Arnald, 1124-1152; 3d, Jón Knutr, 1150-1187; 4th, Jon, 1188-1209; 5th, Helgo, 1212-1230; 6th, Nicolas, 1234-1240; 7th, Olaf, 1246-1280; 8th, Theodorick, 1288-1314; 9th, Arner, 1314-1325; 10th, Jon Skalle, according to Arngrim Jonas before the death of the former, but in 1343 by Torfæus; 11th, Alpho, 1376-1378; 12th, Henry, about 1389; 13th, Andrew, sent in 1406 to succeed the former if dead, but not known if he ever arrived. Baron Holberg, in his History of Denmark, inserts four others,—Berthold, Gre-

Various reasons have been assigned for the total disappearance of the Greenland colonies from the page of history. About 1350, the pestilence known as the black death raged with such extreme violence in the north of Europe, that of all the Norwegian prelates, Jon Skalle or the Bald, of Greenland, and another named Orm, alone survived. This terrible visitation is supposed to have reached the shores of this far-distant land, and diminished its scattered population. This is only conjecture; but it is well known to have been extremely fatal in Trondheim, where it had been carried by an English ship; and as that port had the chief trade with Greenland, it confirms the opinion of those who state that the regular annual communication with that colony was now discontinued. The death of Bishop Alpho, in 1378, was not known in the mother-country till six years afterwards, and then only by accident, an Icelandic vessel having been driven on the coast by a tempest. This neglect, to whatever cause we may ascribe it, must have proved very injurious to the welfare of the colonists, who were thus cut off from all intercourse with the civilized world, deprived of their usual supplies of bread and other necessaries, and left to subsist on the produce of their flocks and the uncertain gains of the fisheries. At this critical period (1379) the Skrellings, or Esquimaux, formerly known in Vinland, first appeared in the vicinity of the West Bygd. They attacked the colony, killed eighteen of the inhabitants, and carried off two boys to the mountains. So reduced was its population, that when assistance was sent from the East Bygd to expel the intruders, not a human being remained in the district. Sheep and cattle, however, in considerable numbers, were found feeding in the pastures, and the deputation having killed as many of these as they could convey in their ships, returned

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gory, Andrew, and Jon,—between Alpho and Henry mentioned above. A brief of Pope Eugenius is also extant, dated 1433, in which he nominates a priest of the name of Bartholomy to succeed the deceased Bishop Nicolas in the see of Greenland. Torf. Gron. Ant. p. 241-258. Arn. Jon. Spec. Isl. pp. 148, 149.

home. No attempt was afterwards made to regain possession of the Vestr Bygd, and the Skrellings continued to occupy it in peace.*

The Austr Bygd, always the more densely peopled and thriving of the two, continued to exist for some time longer.* But the injudicious policy of the Danish sovereigns, to whom it had now been transferred along with Norway, soon completed its destruction. Together with Iceland, Faroe, Finmark, and some other places, it was regarded as the private property of the crown, and no one was allowed to trade there without a royal license; though the length and dangers of the voyage, the small profits thence to be derived, and the disturbed condition of the northern kingdoms, rendered this privilege scarcely worth soliciting. About the year 1389, some ships having been driven to Greenland by a storm, Queen Margaret, on their return, commenced a prosecution against their owners. They were indeed acquitted, but the merchants were so disgusted with the impediments thus thrown in their way, as well as discouraged by numerous shipwrecks, that they withdrew from the trade altogether. The government, now removed from Norway to Denmark, was so distracted by other more important affairs, that they had no leisure to attend to the commerce they had thus monopolized. In 1406, it was resolved to send out a prelate, named Andrew, to succeed Bishop Henry, if he were dead, for even that was unknown, but it is uncertain whether he ever went, or what became of him if he did go. The Danish crown then passed to foreign princes, who, intent only on their own immediate interests, entirely disregarded those distant possessions of the country. From a letter of Pope Nicholas V. in 1448, we learn, that about the beginning of the fifteenth century, a fleet of their pagan neighbours had cruelly wasted the colony, killing or carrying off most of the able-bodied men, so that divine worship had almost ceased. He therefore entreats the Icelandic

* Torfæus, Græn. Ant. pp. 42, 51. Hist. Nor. tom. iv. p. 478.

bishops, to whom this epistle is addressed, to take pity on their wretched countrymen, and if possible to send some qualified person to preside over their spiritual concerns. We do not know the result of this letter, but in 1461, another Andrew, who had been sent to Gardar, though probably he never reached that place, occupied for some time the see of Skalholt, in Iceland. It is stated, that in 1484 there were still sailors at Bergen trading to Greenland, but having then been all poisoned, no others were found to supply their place. In 1494, Pinning, well known as a pirate, and afterwards governor of Iceland, is said by Olaus Magnus to have inhabited the rock Hvidsærk, from whence he plundered the ships in the surrounding seas. With these scattered notices, which are of importance, as showing that some intercourse with the Greenland colonies continued throughout the whole fifteenth century, they vanish from the Danish records, and we are left to conjecture the fate of the miserable inhabitants. Their descendants were long supposed to exist in some of the bays on the eastern coast, but it is more probable that, when thus deprived of all support from their countrymen, they were destroyed by the savages or amalgamated with them.*

Could we confide in the native traditions, the closing scene in the history of this deserted people would be laid open, and as the narrative is not improbable in itself, we shall here relate it, as communicated to Arctander by the Esquimaux. Many winters after the Icelanders had been extirpated every where else, a body of them, subject to an old man of extraordinary size and strength, dwelt in the firth of Igaliko. This was the name of the chief, who, besides several sons of mature age, had one as yet but a child. His countrymen's respect only increased the hostility of the natives, and many fruitless attempts were made to destroy him, his opponents always suffer-

* Torfæus, Gron. Ant. præf. p. 23-26. Crantz, vol. i. p. 347. La Peyrere's Account of Greenland, Churchill, vol. ii. p. 390.

ing for their temerity. During the summer months, the wind generally blows from the sea into these firths, and a new stratagem for exterminating their foes was thus suggested to the Greenlanders. Their bravest warriors, clad in white skins and armed with lances, harpoons, arrows and combustibles, couching down in some of their large boats. suffered them to drift into the inlet before the wind. The colonists saw the fleet, but supposing it merely pieces of floating ice, took no precautions. At midnight it reached the shore, when the Esquimaux leaping out, set fire to the dwellings, slaying the inmates whilst they attempted to escape. All perished save Igaliko and his youngest son; for the aged chieftain, catching the child in his arms, broke through his enemies and fled with him to the hills. Thither none of them ventured to pursue him, and his subsequent fate is unknown.*

The same causes which led to the original loss of these colonies, long prevented any active measures for their recovery. The foreign princes who at that time ruled in Denmark, held their throne by too precarious a tenure, and were too much occupied with domestic affairs, to regard the interests of such distant possessions, whence they could expect neither money nor power. It was not, therefore, till the reign of Christian II. (1513-1523) that public attention was again directed to them by the celebrated Archbishop of Trondheim, Erik Walckendorff. This prelate collected all the information concerning them contained in the ancient writings, or still existing in tradition among the merchants, for he could find no one who had ever visited them. Having from these materials constructed a chart, and drawn up directions for navigating those seas, he proposed to the government to bear the whole expense of rediscovery, and of again establishing an intercourse with these lands, on condition of enjoying a monopoly of the trade for ten

* Graah, p. 42. This was in the district of Juliana's Hope. Does not the chief's fleeing to the hills, that is, towards the east coast, and the Greenlanders not pursuing him thither, look as if both expected him to find assistance there?

years. But this offer was rejected, and the archbishop falling into disgrace through the influence of his enemy Sigbrit, travelled to Rome, where he ended his days.

During the reign of Frederick I., who died in 1533, though Greenland was not totally forgotten, yet nothing was done for its recovery; but his successor Christian III. both repealed Queen Margaret's prohibitory laws, and, though without success, sent out several ships for its rediscovery. In 1578, Frederick II. despatched thither the famous navigator Mogens Heinson, or, as he is sometimes named, Magnus Henningsen. He had a prosperous voyage till he came in sight of the eastern coast, when he was first involved in ice and fogs, and afterwards found his vessel stopped all at once, though in an unfathomable sea with a fair wind. Finding his endeavours to draw near the shore in vain, he was seized with terror, and returned home, where he imputed his bad success to a magnet concealed in the bed of the ocean. Some blamed the remora fish, which had held his ship back with its teeth, whilst others, less charitable, thought that the repelling power was to be found in his fear of the ice, or in his attachment to home. Recent observations, however, on the extraordinary refractive properties of the atmosphere in those latitudes, and on the currents there, offer an explanation more honourable to the character of this truly brave but unfortunate mariner, though less romantic or marvellous than his own.*

* Mogens is supposed to have been a native of Faroe, and was at first a merchant. He was then employed by the King of Denmark in clearing the North Sea of pirates, in which duty he showed great bravery, and was in high favour with Frederick II., who sent him on the voyage related above. His fame procured him many enemies, and in 1588, during the minority of Christian IV., he was condemned on a false accusation, and beheaded. Two years afterwards, Lindenow, judge of North Jutland, procured a reversal of this sentence, and his accusers were fined 3000 rix-dollars. His body was removed to Jutland with great pomp, Lindenow writing a punning epitaph on his name, Magnus or Great, of which the first two lines in English are as follows :—

"God's Greatest majesty gave me of Great the name,
As a Great sign I should in time come to Great fame."

Debes Færoa Reserata, p. 245.

The voyages of Martin Frobisher and of John Davis, who, towards the close of the sixteenth century, were sent by the British government for the discovery of a north-west passage, though unsuccessful in their immediate object, added considerably to our knowledge of Greenland. The former was the first in modern times who landed on the coast, and observed the nature of its productions and the character of its inhabitants. He has, however, been regarded as having mistaken Cape Farewell for an island, and Labrador for Greenland, thus originating the story of the straits bearing his name, which were supposed to intersect this country, and were long looked for in vain.* The discovery of Davis' Straits by the latter first made known the true structure of the land, and its separation from the American continent, with which the old maps represent it as continuous. These voyages, however, having already found a place in a former part of this work, to which they have a closer affinity, we shall not detain the reader with any farther notice of them.†

The Danish admiral, Godske Lindenow, sent by his government in 1605, made few additions to the geography of those northern regions. He cast anchor on the eastern coast, and commenced a trade with the natives, bartering iron, looking-glasses, and other articles for bear and seal skins, and concluded by seizing two men whom he carried with him to Denmark. He was accompanied on this voyage by James Hall, an Englishman, who had the command of another ship; but he soon separated from his consort and steered for Davis' Straits, where he landed and made a chart of the coast. He found the inhabitants here much more fierce and savage than on the opposite side, for having seized four of them, they made so desperate a resistance that he was compelled to put one to death before the others could be got on board. Their countrymen assembled to rescue them from the strangers,

* Zahrtmann, Jour. Geog. Soc. vol. v. p. 108.
† Edinburgh Cabinet Library, No. 1. Polar Seas and Regions, 4th edition, p. 197-222.

but were soon dispersed by a discharge of musketry and cannon. These captives are said to have had no resemblance in form or language to those brought from the other coast by the admiral. The unfortunate beings thus torn away from home and kindred lived many years in Denmark, where they were employed in fishing. Never reconciled to their captivity, they constantly looked to the north with a mournful countenance and melancholy sighs. Several times they escaped in their kayaks, but were overtaken or driven back by the winds. One fled and was never heard of more, probably perishing in the wide ocean; two others soon died of grief, whilst the remainder lingered out a wretched life for ten or twelve years, ill treated, and forced to fish for pearls even in the winter. One of them is reported to have wept bitterly whenever he saw a woman and child, whence it was thought he had been married in his own country; for no pains were taken to acquire a knowledge of their language, or to instruct them in the Danish, so as to obtain any information from them.

Lindenow made a second voyage thither the following year, but with no better results. He entered Davis' Straits, and approached the shore in several places; but the natives, probably warned by the fate of their friends, would hold no communication with the ships. One of his servants ventured on shore, thinking to allure them by presents, but they cut him to pieces with their knives made of the teeth of the narwal, before he could be rescued.

The hope of again finding the colonies, and the expectation of extracting gold from the rocks, originally excited by the yellow shining appearance of some iron pyrites, induced the Danish government to persevere in these attempts. Accordingly the king sent out Carsten Rikardsen in 1607; but the ice prevented his approach to the land, and it is not even ascertained to which side he directed his course. In 1619, Jens Munk sailed with a view to discover the north-west passage; but he is now believed not to have touched at Greenland. The next

expedition was a private undertaking of some merchants, under the patronage of the chancellor Früs, the delusive hope of extracting gold from the sulphuret of iron being again the impelling motive. Two ships were loaded with this worthless mineral, which, after being assayed, was all thrown into the sea. Some teeth of the narwal, or horns of the sea-unicorn as they were then called, proved a more successful speculation, having been valued in Copenhagen at £1200, and sold in Russia as those of the land-animal of the same name. Two of the natives, kidnapped according to the barbarous custom of the period, when allowed to come on deck, in the middle of the ocean, sprung into the waves in the vain hope of swimming to their native land.

David Danel, in the reign of Frederick III., like his predecessors, added little to our knowledge of the country, and nothing towards settling the question of the situation of the colonies. In two voyages, in 1652 and 1653, he passed to the north of Iceland, and, coming in sight of the Greenland coast in latitude 66° or 67°, sailed along it at a distance varying from eight to sixty miles, but without landing. In his first voyage he ran into Davis' Straits, and traded with the natives; and in a third to the same place in 1654, he inhumanly carried off three women,—a circumstance not forgotten by the inhabitants when the missionary arrived. Of the expedition of Otto Axelsen in 1670 we know nothing but the date; and the ships sent from Bergen in 1674 having been captured by privateers, nothing was heard of the country for many years.*

The next attempt, dictated by higher feelings, deservedly led to a more favourable result. Its projector was Hans Egede, clergyman of Vaagen in Norway, with whose labours the second era in the social history of Greenland properly commences. Unlike his predecessors, he was led thither by no hope of personal profit,

* La Peyrere's Account of Greenland. Churchill, vol. ii. pp. 391-401. Torf. Gron. Ant. Præf. pp. 27-37. Crantz, vol. i. 251-256. Graah, pp. 7-11.

but impelled by a strong desire to diffuse the light of religion among its natives, and a cordial sympathy which "made him look upon it as the duty of every Norwegian to search out his forlorn countrymen, and to carry the gospel to them." The philanthropic and Christian motives of this undertaking were the best pledge of its success, and to it we owe the establishment of the Danish colonies on the western coast, and most of our knowledge of that region.

Egede's thoughts were first directed to this subject in 1708, when, collecting all the information he could procure from books or the sailors who frequented those seas, he addressed a memorial to the bishops of Trondheim and Bergen, entreating them to procure the establishment of a mission to Greenland. This proposal exposed him to much ridicule and slander; but in 1718, having resigned his living, he proceeded with his wife and four children to Copenhagen, where, after many delays, his eloquence and piety at last prevailed. In 1721, an expedition was ready to sail, to which he was appointed minister, with a salary of sixty pounds a-year, and forty for his equipment. He sailed on the 12th of May along with forty-six persons, and arriving safe on the 3d July at Baal's River, they built on Hope Island a house of stones and earth, lined with wood.

The natives at first received them kindly; but, perceiving their intention of remaining, withdrew from the district, and used many spells to cause them to depart. Egede, however, soon convinced them of his friendly intentions, and applied himself to learn their language and instruct them in Christianity. This was extremely difficult owing to their ignorance and the want of proper words to convey his meaning, yet by the aid of pictures drawn by his son, he succeeded in imparting to them a knowledge of the principal facts of Scripture history. They then began to regard him as an ambassador from God, and wished him to cure their sick by blowing on them like the native conjurors. Two orphan boys, also, whom he had taken into his house to instruct, soon left

him, remarking, that they saw no use in learning, that he and the merchants were worthless people who did nothing but look in a book and scrawl with a feather, but that their countrymen were brave men, who could hunt seals and shoot birds.

Many difficulties of another kind were also to be encountered ; fish and game being scarce, and the natives unwilling to trade with them, it was only his firmness and hope of better times that preserved the colony from total ruin. Whenever the provision ships were delayed, the Europeans began to murmur ; and many of the natives, who for a time seemed to listen to his instructions, had no sooner obtained some private end than they withdrew to other parts of the country. Another missionary arrived in 1723, who endeavoured to found a settlement farther north ; but it was soon relinquished, and on the death of Frederick IV., its great patron, an order was issued for the breaking up of the establishment, and the return of all the people.

Although Egede and as many as chose were permitted to remain with a year's provisions, yet, as he was told to look for no farther assistance, he could only expect the abandonment of the colony, and the loss of ten years' assiduous labour. None of the people would consent to stay, and it was only after the ship was found too small that the captain permitted ten seamen to remain with him a year. In this discouraging state, the missionary continued his labours till next summer, when a vessel was sent with provisions, but with no promise of future support. He was however relieved from this suspense by the arrival of another, in 1733, with the intelligence that the king had resolved to continue the trade to Greenland and maintain the mission.

The rediscovery of the lost colonies on the eastern coast had been a principal object in sending out these expeditions. Soon after their arrival, the ruins of a church and houses, supposed to be those of the West Bygd, were discovered, and traditions of former inhabitants collected among the natives. Attempts were also made to pene-

trate across the country to that coast, but the ice and precipices soon convinced the adventurers of the futility of such undertakings. In 1723, Egede was ordered to send some resolute sailors thither, and being desirous of seeing the duty faithfully performed, he resolved to accompany them himself. They succeeded in reaching the southern extremity of the mainland, when he was induced by the lateness of the season and the representations of the Greenlanders to return. The natives on the journey pointed out many fiords where ruins of old Norwegian buildings, fine pastures, and brushwood were to be found, but the voyage did nothing to dispel the dark clouds that involved this mysterious question.

The ship which brought to Egede the encouraging information of the king's intention to continue the colony, also brought new labourers to aid in the task of converting the heathen Greenlanders. These were three Moravian brethren who had formed an ardent desire of becoming missionaries in that dreary land. They erected a house near the Danish colony, named New Herrnhut, and applied themselves with great diligence to learn the language. This proved a task of far greater difficulty to them than to their predecessor, although they had his assistance, owing to the want of the most common grammatical ideas, even in regard to their own language. By great labour, however, they succeeded so far as to be able to converse with the natives, and, notwithstanding many obstacles, persevered in their benevolent endeavours. Egede continued in the country till 1736, when his wife, who had supported him amidst all his trials, having died the preceding winter, and being himself seized with a severe illness, he returned to Denmark.* Here, as the reward of his philanthropic labours, he was appointed superintendent of the Greenland mission, with a salary of £100 a-year. He was at the same time ordered to found a seminary for instructing students, mostly orphans, in the Esquimaux language, who were afterwards to be employed as teachers in that country. But the toils he had undergone abroad

were found to have injured his constitution, and he spent his last years in retirement on the island of Falster, where he died in 1758, honoured and respected for his labours in the cause of Christian benevolence.*

The history of these missions, from the departure of Egede to the present time, though replete with interest, is not of such a nature as to bear abridgment. Their progress in converting the heathen, though slow at first, was, year after year, crowned with increasing success. The rude uncultivated minds of the natives, enlarged by intercourse with more civilized men, became better fitted and more capable of understanding the truths of the gospel; and the zeal of the venerable Egede, which had first attached the Greenlanders to the Danes, continued to operate in their favour. The two classes of missionaries also lived together in the greatest harmony, only contending who should be most diligent and successful in promoting their common purpose, and not allowing any unworthy jealousy to interrupt their endeavours. Their lives were those of great labour and exertion, being often in their numerous journeys exposed to much danger from the ice and uncertainty of the weather. Thus, on one occasion, in the month of June, two of the Moravians having gone to an uninhabited island for driftwood, were surrounded by the ice, and detained on this dreary spot a fortnight. They subsisted on fish, and at length made their way at the peril of their lives through the shoals to the mainland, from whence they travelled on foot to the mission, having been absent a whole month.† Nor do the comforts of their dwellings compensate for the privations they endure in such excursions. Though better built and more commodious than the Greenland huts, they are, from the nature of the climate, far from convenient; and firewood, which is usually scarce, can seldom be procured without the utmost difficulty.

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* Egede's Relation. Crantz's History of Greenland.
† Crantz, vol. ii. p. 267.

The war in the beginning of this century reduced the several colonies to great straits, as they are entirely dependent on foreign supplies for all the comforts of life. From 1807, when the last regular supplies reached them, they had endured many privations owing to the want of the most common necessaries. Linen and tobacco, the latter the money of the colony, became scarce, and many of the inhabitants were reduced to the necessity of supporting life by eating small herrings, muscles, and seaweed. It may easily be imagined how soon this state of things, had it continued, would have extirpated the Europeans, or brought them down to the level of the savages with whom they associated. But from this distressing condition they were relieved in 1811 by the British government, who generously granted to the Danes every facility of supplying their colonies with provisions, and from that time intercourse with the mother-country has been subject to no interruption.

The inhabitants of Greenland, as appears from the preceding history, belong to two different races,—the European colonists, few in number and seldom remaining long in the country, and the natives or Esquimaux. The origin and first appearance of the latter are involved in considerable obscurity, though it seems certain that they had not arrived when the Norwegians occupied those coasts. Torfæus says that they were first observed in 1379, at which time they received the name of Skrellings, formerly applied to the savages met with in Vinland. From the history of the voyages related in a former part of this chapter, it is manifest that they then inhabited districts as far south as the territory of the United States. When, however, the Europeans, about five centuries afterwards, again landed on those shores, they found them occupied by a totally different race, the ancestors of the present American Indians. These at that period possessed the whole southern part of the continent, whilst their predecessors had taken refuge in the inhospitable regions of the north, which the Nor-

wegians had previously found uninhabited. It was probably these migrations which destroyed the colony of Vinland, and, forcing some wandering bands of Esquimaux into Greenland, were also instrumental in rooting out the Icelanders from that country. The date of these events is thus fixed to the beginning of the fourteenth century; and though it may seem rash even to conjecture their cause, we cannot avoid supposing it in some way connected with the great revolutions which, towards the conclusion of the previous century, occurred among the Tartar tribes of northern Asia, and extended their destroying sway from Poland on the west to the eastern shores of the celestial empire.*

Similarity in physical structure and customs would lead us to ascribe a common origin to most of those tribes who in both continents frequent the shores of the polar seas, to whose vicinity they are closely confined, either by necessity or choice. The entire want of historical documents, or even of ruder memorials, leaves us ignorant of the first settlement or subsequent migrations of this hyperborean race. Though separated by such an immense distance, the intimate connexion of the

* It is curious to see the present Indians subjected to the same fate by contact with the European colonists, the weak race always yielding or perishing before the strong. We cannot refrain from quoting the following remarks of a distinguished author, which unintentionally confirm this view of the subject. "There appears to be a tendency to extinction among all the savage nations, and this tendency would seem to have been in operation among the aboriginals of this country (America) long before the advent of the white men, if we may judge from the traces and traditions of ancient populousness in regions that were silent and deserted at the time of the discovery; and from the mysterious and perplexing vestiges of unknown races, predecessors of those found in actual possession, and who must long since have become gradually extinguished or been destroyed. The whole history of the aboriginal population of this country, however, is an enigma, and a grand one—will it ever be solved?" Irving's Astoria, vol. ii. p. 74. According to Clavigero (Hist. Mex. tom. ii. diss. 21.), the Aztecas entered Mexico from the north in A. D. 1178-1196, probably about the same period when the Lenni Lenape and other tribes arrived on the east coast. Compare Prichard's Researches, vol. ii. book viii.

Esquimaux language with that of the Tchougazes, and other northern Asiatic tribes, renders it probable that they originally came from the same region. As they must have passed into America by Behring's Straits, and traversed the whole northern portion of that continent, we may thus easily account for the lateness of their appearance in Greenland. The influence of climate, food, and manner of life, has caused them to vary considerably from all the great races of mankind, so that whilst some refer them to the Mongolian type, others consider them as intermediate between that and the American, or as a degenerate offset from the Caucasian stock. The latter opinion is favoured by the white colour of their skins, which essentially distinguishes them from all other American tribes, with whom, on the other hand, they are closely connected by the peculiar structure of their speech.

The name the Greenlanders give themselves is Innuit, that is, men or human beings, as distinguished both from foreign nations, and from the lower animals. This seeming presumption in regarding themselves as the models or representatives of mankind arises more from ignorance than national vanity, and is far from being supported by the beauty or elegance of their persons. The tallest among them rarely exceed five feet, their mean height being only four feet three inches. Though well proportioned, they are by no means vigorous or athletic, and are in general much inclined to obesity, with a full fleshy person and prominent paunch. They have broad flat faces, high cheek-bones, black, diminutive, inanimate eyes, small noses, a round contracted mouth with thick under lip, and a profusion of coarse coal-black hair hanging in long elfin locks about their reddish-brown countenances. Their bodies, now dark gray, though originally white, exhale an oily effluvium almost intolerable to a European, whilst their hands, generally small, are clammy like a piece of blubber. The natives of the southern and eastern coasts are, however, handsomer than the others, with expressive looks,

and slender or even meagre persons; many of the women and children have brown hair, and when the filth and dirt are removed, show a complexion scarcely less fair than that of our peasantry. Graah observed some females whose delicate forms, regular features, clear, ruddy complexion, and long brown hair, fully entitled them to the epithet of beautiful. Such appearances, especially the light hair, inclining in several instances to reddish, might lead us to suspect that these tribes are in some manner connected with the lost Norwegians, though our author rejects this opinion. If they are a pure Esquimaux race, they strongly confirm the idea that this people are a Caucasian not a Mongolian tribe.*

Like most other savage nations, among whom the gratification of the mere animal propensities is the only inducement to action, the Greenlanders are indolent and listless. Though good-humoured, friendly, and sociable, they are seldom lively or inclined to indulge in mirth, and can scarcely be roused from their apathy either by curiosity or passion. They are accordingly little disposed to quarrel or fight; blows or even angry words are seldom exchanged; and they live in great harmony, more influenced by kindness than by harsh treatment. Changeable to an extreme degree, their most favourite projects are resigned on the smallest unexpected obstacle. Endowed with little reach or extent of intellect, their thoughts and cares are almost entirely confined to the present, and they spend their limited stock of provisions without reflecting on future wants, or waste the best season of the year in hunting rein-deer, for skins to gratify the vanity of their wives and daughters. When not compelled by absolute necessity, they pass whole days in sleep, or sit thoughtful and dejected on some lofty eminence watching the changes of the sea and sky, or forecasting the toils and

* Crantz, vol. i. p. 123. Egede, Nat. Hist. Greenland, p. 118. Graah, pp. 70, 73, 88, 115.

dangers of the chase. Vanity, both personal and national, seems their strongest passion: unable to estimate the advantages of others, they esteem no people equal to themselves, no title higher than to be a Greenlander. The most flattering compliment they can pay to a stranger is to say, "He is almost as well bred as we," or, "He begins to be a man" or "Innuit," that is, a Greenlander. A favourite amusement among them is to exhibit caricatured imitations of the manners of the Kablunact or foreigners. Even those who have been in Denmark prefer their naked steril rocks to every other country, and will hardly confess that Europeans are so happy as they; complaining that at Copenhagen there is not heaven enough, and no reasonable degree of cold.

Temperate, modest, and little disposed to anger, or at least skilful in concealing it, crimes are rare among them. When injured they remain dumb and sullen, hiding their passion till an opportunity of revenge occurs, from which, when once exasperated, no danger can deter them. When a parent has been murdered, it is an established principle that his descendants must avenge him, at however distant an interval; though instances of their destroying each other are rare, except in regard to those unhappy persons who are accused of witchcraft. When this crime is held to have been proved the wretched victim is called out of the house or tent, charged with being an Illiseetsok, stabbed and cut to pieces; each of the executioners eating a part of the heart to prevent their being troubled with the ghost of the murdered person. It is usually the old and infirm, who have no children to protect or avenge them, that suffer this fate, and as often, it is thought, from mere malice as from any belief in their supernatural power.

Their morality, indeed, seems very much of a selfish nature, and, like most savages, they have one rule of dealing with their own countrymen, and another with foreigners. Hence though stealing, being much detested, is not common among themselves, they make little scruple in appropriating any thing belonging to

strangers, especially nails, tobacco, bread, or a piece of their favourite delicacy, a tallow candle. They are also adepts in dissimulation, and so little scrupulous about truth, that they tell lies whenever it seems for their advantage. Though far from being destitute of natural affection to their relations, they have no feelings of humanity towards the rest of mankind, but with the utmost indifference suffer widows and orphans to perish, who have no friends to provide for them. Such insensibility is however partly occasioned by their situation, which exposes even the most active and vigorous amongst them to innumerable privations.

This deficiency in moral principle is far from being compensated by that mixture of superstition and absurdity which constitutes their sole religion. The origin of the world and of mankind, some traditionary opinions concerning which have been met with in almost every corner of the globe, has never engaged their thoughts. The belief in a Deity has also nearly vanished from their minds, no word with this meaning, it is said, being found in their language; and no prayers or apparent worship of any kind is practised by the unconverted. They nevertheless maintain the spirituality and future existence of the soul, blended with many strarge inconsistencies. There is also a good, though mortal, spirit, Torngarsuk, described sometimes as of small stature, no bigger than one's finger; at others as a giant with one arm, or as an immense white bear. Besides this spirit there are others less powerful, genii of the fire, water, and air, the last of whom instructs them through the angekkoks what it is necessary for their happiness to perform or avoid. Torngarsuk has also a wife or mother, the personification of the evil principle, who lives at the bottom of the ocean, guarded by fierce seals, with sea-birds swimming in her train-oil lamps, and surrounded by flocks of the finny tribes, spell-bound by her beauty, and only disenchanted when the magician, seizing her by the hair, tears off her head-dress. As an instance of her power, it is related that

she towed the island of Disco from Baal's River to its present situation, some hundred miles farther north; and the hole in a rock is still pointed out to which her line was fastened. The angekkoks, who are rather magicians than priests, have great influence over the natives, who consult them on every difficulty, as the heathen of old had recourse to the oracles. They have a peculiar language of their own, and are able, it is said, from long-continued observation, to foretell the changes of the weather some days before they occur,—an acquirement of vast importance among a people dependent on the sea and winds for their food. In sickness, the angekkok is the only physician, prescribing either a peculiar diet, or the use of some strange ceremonies or amulets. He also secures to them a plentiful supply of fish or game, and, consulting his familiar spirit, informs them as to the health or fortune of their absent friends. With all this outward respect, there is mingled a great degree of scepticism, which appears in their private meetings, where they mimic and turn into ridicule the ceremonies of these conjurors, not sparing Torngarsuk himself; and in those parts of Greenland where the missions have been longest established few or none of these impostors are now found.*

One of the most curious facts in regard to this people is, that whilst their moral and religious opinions impose little or no restraint on the indulgence of their passions, this defect is not remedied by any external form of government. The Arctic Highlanders of Ross were subject to a chief who shared the profits of the fishery or chase; but this approach to social order is unknown farther south. Whatever virtues they possess are therefore entirely spontaneous, the laws or customs regulating their intercourse with each other having no sanction except public opinion. This curious phenomenon has not met with that attention it deserves,

* Crantz, vol. i. pp. 125, 181-200. Egede, pp. 123, 125, 179-202. Saabye's Greenland, p. 47-50. Graah, pp. 75, 116-124.

though we conceive its explanation may be found in the peculiar circumstances of the people. Property among them is altogether personal, no piece of ground, no portion of the sea, being appropriated to any particular village or tribe. In the absence of public property war is unknown, and hence the two greatest motives for union do not exist. At the same time, all a man's possessions are the result of his own labour, and confined almost exclusively to food and clothing, or the instruments by which these are acquired; whilst the rude climate and the nature of the articles will not permit any one to hoard up stores which may tempt his neighbour to crime or servility. Their virtues, rather the negation of vice than any positive good quality, are thus produced by their ignorance and the absence of temptation; whilst government does not exist, because there are none of those objects for which it is required, and none of the means by which it is established and maintained. Both peculiarities have their origin alike in the universal ignorance and poverty of the people.*

A similar obscurity and rudeness prevail in their opinions on other subjects. Their language, though marking by appropriate terms the slightest shades of difference in external objects, has yet few adjectives, and no words for abstract ideas in religion, morality, art, or science. Like all the other American tongues, it is remarkable for numerous affixes and suffixes, which enable them to express much in a short space, but render the words cumbersome, and occasion great difficulty to those who endeavour to learn it.† Their manner of speaking is free and simple, totally devoid

* Anderson's Nachrichten, p. 307-309. This author is the only one we know who has taken particular notice of this circumstance, being led to it by his professional studies. Many of the American tribes when first discovered were in nearly as imperfect a condition, especially those subsisting on fish. Robertson's America, Works, vol. iii. p. 294-296. Note, p. 543.

† "Thus, from the radical verb *innuvok*, 'he lives, is a man.' is derived *innugikpòk*, 'he is a handsome man;' *innurdlukpòk*, 'he is a mis-shapen man;' *innukulukpòk*, 'he is an unfortunate

of hyperbole, with few figurative or metaphorical expressions; and their poetry, without rhyme or measure, is merely short periods sung in a certain cadence, with a brief chorus intervening.* Science cannot be said to exist among them: twenty winters are the limit of their numeration, all above that amount being styled innumerable; and no one can tell his age, though they trace their pedigree up to the tenth generation through all its branches. Until they were instructed by the missionaries, they had no idea of writing, and were at first afraid to touch a book, though now many of them have learned to write, and others correspond with the factories in rude hieroglyphics, drawing the article required with charcoal on a piece of skin, and marking the days to the time of payment with strokes. Their history is buried in impenetrable darkness, their only traditions being some incongruous accounts of the battles of their ancestors with the old Norwegians. Time is denoted by the changes of the seasons, the migrations of birds, or by the growth of plants and animals; whilst they divide the day by the ebbing of the tide, and the night by the rising of the stars. Of the heavenly bodies they entertain the rudest ideas: the stars are the souls of their ancestors; the shooting ones are spirits going on a visit from heaven to hell; whilst the sun and moon are two mortals to whom they impute many absurd customs. Necessity has given them a knowledge of some simple

man;' *innuksiorpòk*, 'he is a good man;' *innukpilukpòk*, 'he is a bad man;' *innuksisimavòk*, 'he is a man as a Greenlander, *i. e.*, a modest man;' *innungorpòk*, 'he begins to be a Greenlander.'" Giesecke, Ed. Encyc. vol. x. p. 486. From this common *polysynthetic* form, as it has been well named, of the American languages, in which they differ from all others, Professor Vater draws the natural conclusion, "That these common methods of construction have had their origin from a single point; that there has been one general source from which the culture of languages in America has been diffused, and which has been the common centre of its diversified idioms." Mithridates, theil iii. p. 328.

* M. Kier has published a collection of Greenland poems in the original language, Illerkorsutit, Aarhuus, 1833. Several of them have also been translated by Herder in his Volkslieder.

methods of treating external injuries, and they even operate for the cataract with wonderful success, considering that their only instruments are a crooked needle and a large round knife. For internal diseases incantations are their sole remedy; all besides is left to nature. The most common are ophthalmia, consumption, and pleurisy, with scurvy, leprosy, and some other cutaneous complaints occasioned by their filthy mode of life.*

In their intercourse with each other the Greenlanders are friendly, polite, and anxious to please or rather not to offend. They are very loquacious, and fond of conversing in an ironical strain, satire having far more influence on them than any kind of reasoning. In the frequent visits they make to each other, the guest is stripped of his clothes which are hung up to dry, and the most honourable place assigned to him. Their entertainments consist of three or four dishes, and it is considered polite in a stranger to require great pressing before he partake of any thing. When we consider the fare, this seeming reluctance will not be wondered at, the greatest delicacy, in many cases, being part of a whale's tail half-putrid, or, it may be, a seal's carcass in the same condition. By way of dainties, however, they sometimes present the flesh of bears, belugas, sharks, dogs, gulls, and bull-heads. When they wish to treat a European with extraordinary politeness, before offering him a piece of meat they lick off the blood and filth with their tongues, and it is considered a gross insult to decline the gift. The seal furnishes them with almost their whole food, the most important additions being fish, sea-fowl, rein-deer, hares, and partridges, though the three last are now scarce. Foreign provisions, such as bread, pease, and stockfish, together with tobacco and brandy, are very acceptable. They eat no vegetables except a few berries preserved in blubber, the angelica,

* Crantz, vol. i. p. 210-216. Egede, pp. 163-174, 202-208. Graah, p. 124.

and some varieties of seaweed found on their shores. Train-oil is only used for preserving their food, and the blubber is principally eaten to the dried smelt. Raw flesh is also consumed in small quantity during the chase of the rein-deer. Their cooking, performed in vessels of potstone over a lamp, or in a copper cauldron in the open air, partakes of the dirtiness of their other habits. The pots are never washed, being merely licked by the dogs; and the meat when taken out is laid on the ground, or on an old skin but little cleaner. Their great time for feasting is when they happen to kill a whale, or find one dead on the shore, when every one runs to the prize, cutting off and carrying away as much flesh and blubber as he can obtain.

In winter the Greenlanders inhabit houses or huts, and in summer tents. Two or three families, sometimes eight or ten, live in one of the former, which is about twelve feet wide, from fifty to a hundred long, and five or six high. The walls, composed of stones and turf, are lined on the inside with hides to keep out the wet. A broad bench of wood, covered with skins and divided according to the number of families, runs along one side, serving for a seat by day and a bed by night. At every partition is a fireplace or oil-lamp placed on a stool, with a potstone kettle suspended over it, and above this a screen for drying clothes. The windows are formed of the entrails of seals, whales, or dolphins, neatly sewed together. A long, low, narrow passage, through which the heated air escapes, is the only entrance; and though there is no door, the house is so warm that the natives sit either almost or altogether naked. Their dwellings are generally situated on a rising ground or rock near the sea, to permit the rain and melted snow to run off. Such, however, are the filth and smell, and the steam from the bodies of the inmates, that Europeans find it difficult to remain any time in them. The summer-tents have also stone walls, and are covered with seal or rein-deer skins; but as only one family occupies each of these, and the cooking is conducted in the open air, they are

cleaner and less offensive to a foreigner than the houses. Their travelling-tents are merely poles fixed in the ground and supplied with the usual covering.

Both sexes dress very much alike, and in a manner suitable to the climate. The outer garment is a close coat of seal or rein-deer skin slipped over the head and reaching to the knees. Attached to the back is a hood, like a monk's cowl, for covering the head, used only in winter or bad weather. Underneath they wear a shirt composed of the skins of deer or fowl, with the hair or feathers turned inwards. They have also breeches, stockings, and shoes, all of seal-skin ; and the women adorn their garments with strips of red, blue, or yellow leather and cloth. Mothers and nurses wear a wide cloak bound round the body with a girdle, in which they wrap up the child, usually quite naked. In ancient times the ladies, in order to be completely handsome, were tattooed ; but this fashion is now obsolete or only retained by very old women.*

The only thing in which the Greenlanders manifest much skill is in the structure and management of their boats,—the kayak or boat for one man, and the oomiak or women's boat, both formed of a light frame-work of wood covered with seal-skin. The latter is usually about twenty-four feet long, and five or six wide, though some are built nearly a half larger. The covering consists of sixteen or twenty seal-skins saturated with blubber and thoroughly dried. Neither nails nor spikes are used in their construction, the whole being fastened together by the sinews of the seal, and their entire strength consists in their elasticity. They are flat-bottomed and only fitted for a calm sea, as a stiff breeze or heavy swell is sure to capsize or destroy them. The ice is also apt to cut the skin by which they are covered, when the natives repair the damage by stuffing the hole with blubber, or draw them upon the shore

* Crantz, vol. i. p. 127-132. Egede, pp. 113-118, 129-133. Saabye's Greenland, p. 2-14.

and sew a patch on the place, which is soon accomplished, as two persons can easily carry one of them. They are rowed by four or five women, and with a full cargo on board can sail thirty miles or more in a day, though, on long voyages, one cannot count on more than twenty or twenty-four on an average, as every fifth day the boat must be taken out of the sea to allow the skin now saturated with water to dry. The former, the kayak or man's boat, is from twelve to fourteen feet long, about eighteen inches wide, and a foot deep, formed of wood and whalebone, covered above and below with skin, and seldom weighs more than twenty or thirty pounds. In the middle is an opening, surrounded by a hoop, into which the Esquimaux slips, and drawing his seal-skin cloak tight round it, renders the whole completely impervious to water. There is only one oar, six feet long, with a thin blade at each end fenced with bone. In this frail bark he fears no storm, floating like a sea-bird on the top of the billows, or emerging from beneath the white waves that dash over his head. Even when upset he rights himself by a stroke of his oar under the water; but if this is lost or broken he is certain to perish. Few Europeans ever learn to row the kayak, and many even of the natives can never attain sufficient skill to regain their equilibrium when overturned.*

Most of their domestic concerns are committed to the charge of the females, the men seldom either directing or assisting. It is the women who must make clothes, boots, canoes, and tents, dress leather, clean and dry the garments, gut and dismember the game, cook the meat, cut the potstone lamps, prepare oil and wicks, and build houses and tents. The business of the other sex is almost exclusively confined to catching seals and other game, and many of them consider it a degradation even to convey what they have taken from the boats to their houses or tents. In their marriages it is therefore to the former qualifications of good housewifery that the

* Graah, pp. 29, 30.

Greenlander has regard in choosing his spouse, whilst the ladies, on the other hand, look out for a good hunter, who is skilled in catching seals. The bride has seldom any dowry, her whole portion being in general the clothes upon her back, to which is sometimes added a lamp, a kettle, a few needles, and a round knife. The parents never interfere in marriages, and decorum requires that a girl should not choose to enter into wedlock ; and she, according to rule, makes great difficulties, runs to the mountains, and has usually to be dragged by force from her home. The bridegroom puts her into his oomiak, supported by some old women, carries her to his house, and they are then considered as united. Sometimes she runs away, and has to be brought back ; and if her aversion is real, she continues this practice till her lover tires of the pursuit, though formerly they prevented such escapes by cutting slits in the soles of the bride's feet. At the missions marriages are contracted through the intervention of the clergyman, who is applied to for this purpose by the man. Among the heathen polygamy is allowed, though seldom practised, unless when the first wife has no children, and in this case she often requests her husband to take another. Divorces sometimes occur ; and all that is necessary to accomplish this object is for the husband to assume a surly face, leave the house a few days without saying where he is going, upon which the wife takes the hint, packs up her effects, and repairs with her children to her relations. Their marriages are not very prolific, the number of children rarely exceeding five or six ; and they are allowed to grow up almost as nature dictates, the parents never chastising or even reproving them. Till their sixth or seventh year they are therefore very untractable, but after that time they follow their parents willingly, and with increasing age behave still more respectfully towards them. The boys from their earliest years are regarded as the future masters of the house, and are employed by the father so as to be afterwards qualified to perform the business of men. The first

sea-fowl caught by them gives occasion to a great festival in the family. The affection of the parents for their children is excessive, and no method of conciliating the former is more effectual than fondling the latter; whilst he who ventures to strike, or even reproach them, incurs their certain displeasure.

Though extremely sociable, the Greenlanders have few amusements, and these mostly of a very rude description. Their only musical instrument is a kind of drum or tambourine, formed of a hoop of wood covered with a fine skin, on which they beat with a small stick. The performer, at the same time, leaps and contorts his whole body, writhing and twisting his head and eyes in the most laughable manner. He also frequently extemporizes a ballad, the subject of which is the chase of the seal, or some other incident equally important to the assembly, who, at the end of every verse, join in the chorus of "Eia-eia-a!" In these songs they decide many of their quarrels, or, when injured, take vengeance on their adversaries. They compose a satirical poem, which is learned by their friends, and meeting on an appointed day with their opponent and his partisans, each, singing and dancing as above, states his case, accompanied with as much ridicule and sarcasm as he can devise; after which the spectators pronounce sentence, from which there is no appeal. This manner of arbitration has great influence in preventing and punishing offences, as the natives are much afraid of being laughed at by their neighbours. It has, however, been discouraged by the missionaries, and is now altogether abolished on the western coast.

The dead are buried in a sitting posture, and dressed in their best clothes. As the earth is very shallow or hard-frozen, they build tombs of stone, and cover the body with plates of mica slate or clay slate, to preserve it from carnivorous animals. The kayak and hunting instruments of the deceased are placed at the side of the grave, and they put a dog's head into that of a child, in order that its spirit may guide the helpless infant to

the land of souls. On their return to the house, they continue their lamentation in a sort of monotonous howl, at the conclusion of which some refreshment is taken, and each departs to his own dwelling.

Desire of food, as already remarked, is the great motive to employment among savages, and to this end all the exertions of the Greenlanders are immediately directed. The chase of the rein-deer used formerly to occupy much of their time, and though, from the increased facilities of destroying them since the introduction of firearms, less lucrative than formerly, it is still the favourite pursuit. The white hare is also hunted for its flesh, and the foxes for their skins; but the profit of all these is so inconsiderable, that the missionaries think it would be of advantage to the nation if they could be persuaded to relinquish them altogether, and confine themselves to the fisheries and the catching of seals. The latter is to the natives of Greenland what the rein-deer is to the Laplander, the principal source of wealth, without which their country would be uninhabitable. It provides them with all the necessaries of life: they eat its flesh, cover themselves, their boats, and houses with its skin, and find light and warmth in its blubber. In hunting it they use a harpoon, to which a bladder is fixed by a thong eight or nine fathoms long. The seal, when struck, often pulls the bladder under water, but being soon exhausted, is compelled to rise to take breath; upon which the fisher repeats his blows with the spear or lance till it is killed. Should the line, however, become entangled, the kayak is drawn down, and its owner drowned. They also entrap many in the narrow fiords by cutting off their retreat to the sea, and in the winter watch for them at holes cut in the ice, and despatch them with their harpoons. They also surprise them when sleeping on the ice, though from the extreme wariness of the animal this method is not very successful. Near Disco Island they use a white screen attached to a pole, which they push before them on the snow till they get within shot, and in this manner they often deceive their prey.

They sometimes fish for the whale, though now only in conjunction with the Danes, their own implements being so imperfect that it generally escaped them. They made use of nearly the same apparatus as in catching seals, and were careful to put on their best clothes, as they thought the monarch of the floods had a particular antipathy to them when dirty, and that even when dead, he sunk to escape the contamination. Besides the true whale they also caught several other of the cetaceous tribes, as the narwal, pot-fish, and white fish. They also spear the salmon and salmon-trout, or build weirs of loose stones at the mouths of rivers, over which the fish pass at high water, and are secured when left behind at the ebb.

Among a people whose wants are so few, and whose country produces so little that is an object of desire in other lands, trade cannot be very extensive. Most of the articles are those which are necessary for their own wants, and it is only since a taste for European commodities has been diffused among them that commerce has begun to increase. The principal exports are feathers and eider down, horns of the sea-unicorn, skins of seals, blue and white foxes, white bears, hares, and rein-deer, whalebone, and blubber, or oil of every kind. In return for these they obtain guns, powder, and shot; ironmongery, as knives, files, axes, needles, nails, arrow-heads; linen and hosiery, cottons, ribbons, gloves, looking-glasses, snuff-boxes and tobacco, which last is in great request. They are also very anxious to procure rye-bread, barley, tea, coffee, beer, and brandy; but this last has been prohibited, and no one is allowed to sell or even give it to the natives. This trade is a government monopoly, and five or six vessels are sent out every May, the cargoes of which are worth 65,000 rixdollars, or £13,000 sterling; whilst the goods exported are valued at 85,000 rixdollars, or £17,000.

This account of the manners and habits of the Esquimaux applies only to those still in their wild or unconverted condition; for on the western coast, where the

missions have been longest established, their influence is very perceptible. It has indeed been objected that the Christians are still as superstitious as the heathen, and by no means less immoral in their lives. The first of these accusations is in some degree true, superstition prevailing there as in all other half-civilized and imperfectly educated communities, but by no means to such an extent as formerly. The angekkoks have all disappeared from the vicinity of the colonies; and those cruel murders of persons accused of sorcery or witchcraft are now scarcely known. The same reasons account for the progress of morality being less than might be wished, though many indecent practices, once common among the heathen, have now vanished. In a country where there are neither laws nor magistrates, and where the most atrocious crimes would remain unpunished, we can ascribe the decrease of vice to nothing except the moral improvement of the people. Even the most imperfect form of Christianity is preferable to the mingled atheism and superstition that once prevailed; and though all the good effects of conversion may not yet every where meet the eye, we may be assured that they are very considerable. Even viewed in the lowest light as an instrument of civilisation, elevating the natives above their original degraded state, the gospel has not proved wholly fruitless, though its full influence will only be manifested after several generations. The people, who formerly regarded letters as magic, and a book as a work of the evil one, can now very generally read and write, and being anxious for information, are fond of perusing the volumes, chiefly religious, which have been published in their language. A more unpropitious field for missionary labour could scarcely have been chosen, or one less likely to tempt any person to undertake its duties; and the success, though small, is unquestionably sufficient to encourage still farther exertions.

FAROE.

CHAPTER IX.*

Description and History of Faroe.

Situation and Extent—Appearance—Precipices—Hills—Rivers—Springs—Sea—Whirlpools—Climate—Limit of Agriculture—Temperature of Air and Springs—Winds. TOPOGRAPHY—Fugloe—Bordoe—Oesteroe—Curious Rocks—Stromoe—Thorshavn—Kirkeboe—Bird Mountain—Vaagoe—Myggenæs—Skuoe—Store Dimon—Dangerous Roads—Suderoe. HISTORY—Discovery—Sigmund Brestoson—Conversion of the Natives—Subjugation by Norway—Pirates—Reformation—Plundered by Privateers. INHABITANTS—Appearance—Character—Morality—Hospitality—Food—Dress—Employments—Fishing—Catching Whales—Seals—Bird-catching—Agriculture—Gardening—Cattle—Population—Diseases—Commerce—Ecclesiastical Condition—Civil Government.

THOUGH less extensive in size and population than the two former countries, the Faroe Islands are almost equally interesting, both in their physical and social relations. Although allied to these in ancient and modern times, and peopled by a branch of the same Scandinavian stock, their remote and isolated situation in the wide expanse of the stormy ocean has impressed on their inhabitants a strange and peculiar character. Unknown to the ancient Greeks and Romans, their first discoverers were those daring Northmen, who in their frail barks ransacked every sea for new shores to plunder, and for new lands where they might inscribe their names in blood and ashes. It is in their history that these islands first appear, and by them their present appellation seems to have been imposed. It is derived from the old word

faar or *foer*, a sheep; this animal having probably been introduced by the sea-rovers who frequented them long before the severity of Harald compelled his subjects to take permanent refuge in those distant lands.*

This group of islands is situated in the northern sea, between latitude 61° 26′ and 62° 25′ N., and long. 6° 40′ and 7° 40′ W. The Shetlands are 185 miles to the south-east, whilst Iceland is 320 north-west, and Norway about 400 east. The islands, particularly the northern portion, lie closely together, extending about sixty-seven miles from north to south, and forty-five from east to west. The whole cluster consists of twenty-five, of which seventeen are inhabited, the others being only barren rocks, or grassy holms on which sheep are fed during the summer months. The extent of the whole has been estimated at 850 square miles, and that of the inhabited portion at from 500 to 650.†

When seen from the sea, these islands have all the same general appearance, resembling some parts of Iceland, though on a smaller scale. The whole group rises from the ocean, high and precipitous, surrounded by walls of lofty rocks, imposing on account of their wild aspect and the deep bays and gulfs which separate them from each other. The cliffs, in many cases, are so perpendicular, that the boats are let down by ropes, whilst the sailors clamber up the sides by holes cut in the rocks. From the top of these walls, which are as smooth as if artificially built, a stone may be dropped into the sea 800 or 1000 feet below. One of the most remarkable of these points is the promontory of Myling, at the northern end of Stromoe, 2500 feet high, and completely perpendicular. In other places the waves have cut the cliffs into the most fantastic forms, sometimes resembling old Gothic houses, at others, needle-shaped fragments, the Witches' Fingers (Trollkonefinger) of the natives, shoot up into the air, or the softer strata are worn into large vaults and long winding caverns, inhabited by seals

* Torf. Hist. Færeyensis (Havniæ, 1695), p. 2-4, et præf. Landt, Description of Feroe (Lond. 1810.), p. 2.

† Hassel's Erdbeschreibung, vol. x. p. 209.

and waterfowl. One of these pierces the island of Nalsoe from side to side, and may be passed through in a boat in calm weather. A still more curious appearance is seen where these caves end in rents or holes extending to the surface, as near Westmannshavn in Stromoe. In stormy weather, the waves dashing on the coast force the compressed water within to rise through them in jets of foam, with a noise like thunder. In other places, where soft and hard strata alternate, the cliffs are separated into numerous terraces, scarcely a foot broad, on which the sea-fowl build their nests.*

In the interior these islands are full of mountains and cliffs, intersected by narrow valleys. Some of them may be regarded almost as one eminence rising from the sea, and forming merely a group or chain of hills. In none of the larger inhabited ones is the highest point less than 1000 feet above the level of the water; in the northern, the central ridge is 1200; and in Kunoe it is 2000 feet high, with a basis of more than two miles broad. The highest hill in Faroe is the Slattaretind, near Eide, in Oesteroe, which, according to Forchhammar's measurement, is 2816 feet Rhenish, or 2900 English. The Myling, already mentioned, and the Skiellingsfeld, according to Wargas, above 2400 feet high, rank next in order. These hills in general form a succession of grassy declivities, alternating with naked walls of dark rock. On the top they are mostly flat, with numerous marshy hollows filled with moss. The soil, though thin, is fertile, especially near the coast, where the houses are built, but as we ascend, its thickness diminishes, and the tops of the mountains are in general nothing but bare stone.

The moisture from the surrounding ocean forms numerous streams and rivulets, though none of any considerable size. These pour with great impetuosity down the steep sides of the mountains, in picturesque falls and cataracts, which are often dispersed by the wind before they reach the bottom. Each brook traverses, from

* Graba Tagebuch, pp. 93, 97, 119, 209. Forchhammar, Karsten's Archiv. vol. ii. p. 198. Scoresby's Greenland, p. 368. Allan, Ed. Phil. Trans. vol. vii. p. 243.

its origin to the sea, a large amphitheatre-like valley, in which flat semicircular plains are divided by steep walls. There are also abundance of springs, supplying the inhabitants with water, some of which have a temperature above the mean heat of the place. There are but few lakes, the largest of which, in Vaagoe, is only two miles in circumference; Leitumvatn, in Stromoe, lies in a mournful-looking basin, surrounded by black naked rocks, whilst a few sea-fowl alone enliven the scene. Toftevatn, another of the larger lakes, is said to resemble Loch Goil in Scotland, but has an equally melancholy and desolate aspect as the other.

The extent of open sea on every side exposes Faroe to the full fury of the billows, which are broken by no sloping beach or shallows, the depth of water close to the shore being often so great that a ship may without difficulty touch the cliffs. The waves, even when excited by only a moderate breeze of wind, rise extremely high, dashing over the rocky promontories some hundred feet above the surface. The currents are also very remarkable, running with great regularity rather more than six hours to the east, and then during the same time to the west. A knowledge of this is of great importance to the natives, who, in sailing from one island to another, must calculate the time of change, as they find it impossible to contend against the stream. When a storm comes on whilst the boats are out fishing, the same cause frequently occasions their destruction, as it is not in the seamen's power to reach home before the turn of the tide. These currents are strongest at the change of the moon, and during stormy weather, when there are often weeks and months during which it is impossible to pass from one island to another. The natives tell of a clergyman who was detained eighteen weeks on Fugloe, and of another who, having gone in good weather to visit a sick person in Myggenæs, could not return home before the end of fourteen weeks. During the three months and a half that Graba was in Faroe, there was not a day when the state of the winds and ocean would permit him to reach Myggenæsholm, which he was anxious to see.

The tides and currents, meeting and forcing their way through the narrow channels amongst these islands, form several whirlpools, of which three are dangerous in high winds. The most remarkable of them is that at the Monk, a rock rising from the sea at some distance south of Suderoe, round which, according to Debes, the water turned in a threefold gyration. His account, formed from the report of credulous mariners, was highly exaggerated; as it may be safely approached in boats, and is only dangerous to ships from the shoals which surround it, over which the waves break with great violence.*

The climate of Faroe, though harsh, is by no means so much so as its latitude would lead one to suppose, the wide ocean around mitigating both the cold and heat. The latter is of very short duration, for even in July and August the warmth is never great, and the weather very unsettled. The frost seldom continues a month;† the bays are never covered with ice, except in the coldest years, and the winter is milder than in Denmark, the thermometer rarely falling below 14° of Fahrenheit. The snow is never deep, and seldom covers the ground above a week at a time. We need not therefore be surprised to find some birds wintering there, such as the curlew and the common stare, which finding Holstein too cold, seek a warmer climate. The want of wood on these islands is therefore to be attributed to the high winds and salt fogs from the sea, rather than to deficiency of heat; whilst the birch trees found in the mosses prove that they formerly grew there, and were probably cut down for fuel. The grass fields attain an elevation of 2000 feet on the plains and gentle declivities, but the mountain tops are a perfect desert, where the violent winds suffer no vegetation to exist.

* Graba, pp. 33, 42, 48, 69. Debes, p. 45. Landt, pp. 20-25, 109-113. Forchhammar, p. 197-199.

† That which continued from December 1815 to April 1816, having commenced when the ground was covered with half-melted snow, occasioned the loss of 30,000 sheep. In Stromoe, out of 16,517, there perished 7870, or nearly one-half. Trevelyan, Edin. Phil. Jour. vol. xviii. p. 156.

The deterioration of the climate as we ascend, and at the same time the effect of exposure, are well shown by the cultivation of barley, the only cereal plant grown in Faroe. According to a mean of several observations, in the southern islands this grain reaches an elevation 293 feet on the southern exposure, and only 214 on the opposite side of the hills. In the northern islands, again, with the former exposure, it attains to 256 feet, and to 147 with the latter. But in Suderoe, where the crops may be reaped even in less favourable years, regular cultivation does not exceed 138 feet on the southern declivities, and 80 on the northern; whilst the greatest height is 418 feet on Myggenæs. Potatoes, however, grow at a point considerably higher.

The mean temperature of the year at Thorshavn is 45.4°, that of mild years being 49.2°, and of cool ones 42.3°. The mean of the three warmest months varies from 56.9° to 51.7°; and of the three coldest from 41.6° to 33°; whilst the greatest height of the thermometer was 72.5°, and the lowest 18.5°. The temperature of the springs on the seashore seems to be about 45°, decreasing regularly as we ascend, some hot ones excepted. Those issuing from one stratum have constantly a degree of heat corresponding to their elevation; the fountains proceeding from the compact rock being warmer than those from the loose debris. The temperature from the shore to the height of 1500 feet seems to vary about one degree in 276 feet, though a spring observed on Könugefield on Kunoe, with a temperature of 36° at an elevation of 2460 feet, gives one degree to 286 feet. The coldest spring observed is one on Debelslock on Bordoe, at 34.5°, whilst the warmest is the Warmakelde on Stromoe, near the level of the sea, equal to 65.3° Fahrenheit.*

Thunder is very rare in Faroe, though more frequent in winter than in summer; and lightning is never known to do any injury. High winds, on the other

* Forchhammar, p. 197-200. Trevelyan, Ed. Phil. Jour. vol. xviii. pp. 156, 163. Hassel, vol. x. p. 210. Graba, pp. 36, 49.

hand, are extremely common, whirlwinds and hurricanes both in summer and winter being almost daily visitants. Unlike the whispering gales and cooling zephyrs of the poets, they inspire strangers with the utmost terror, announcing their approach by a bellowing noise, and clouds of dust, sand, or stones torn from the mountains. They strip the tops of these of all soil and vegetation, rolling up the turf like a sheet of lead, and precipitating it into the valleys. Often when there is a strong gale on the shore, the exposed sides of the hills enjoy a perfect calm, which has been accounted for by supposing the wind reflected from the perpendicular cliffs to rise in a vertical current, carrying along with it the horizontal strata. The most violent winds are those sudden gusts which, descending from the mountains, occasion the greatest devastation, especially among the boats and shipping in the narrow channels. It is a remarkable circumstance, that before and after these violent blasts the atmosphere is so completely lulled, that a lighted candle may be carried from house to house in the open air.*

As already mentioned, the inhabited islands are seventeen in number, some of the peculiarities of which we shall now shortly notice. The most distant to the north-east is Fugloe, the bird-island, flat on the top, and surrounded with lofty cliffs, up which the natives drag their boats with extreme difficulty. South of it is Svinoe, formed of two lofty hills, almost separated by deep bays. Videroe, to the north, is of more importance, being seven miles long by five broad, with six hundred inhabitants. Bordoe, which follows to the westward, is nine miles long, and from five to seven broad. It has been compared in shape to a crab, being indented by deep inlets, on which the shore is low and sandy, but in all other places surrounded with precipitous rocks. The tops of the hills are sharp and bare, and a house which stood amongst them was removed on account of the avalanches of snow, which several times destroyed the buildings and killed

* Landt, p. 126-129. Graba, p. 127.

all the inhabitants. Kunoe, to the north-west, is five miles long by two broad, and forms one continuous mountain, rising from the sea to the height of 2000 feet. The landing-places both on this and the last are extremely dangerous, and the boats are pulled up or let down by ropes. Kalsoe, which succeeds, is long and narrow, steep towards the west, but sloping gradually down to the east. Oesteroe the second largest in the group, contains eighty-eight square miles, seven churches, and about 1200 inhabitants. It is intersected on the eastern side by five inlets or arms of the sea, and on the west by Skaall Fiord. The hills here are the highest in Faroe, and exhibit some beautiful ranges of basaltic rocks, extending above a mile in length, with a height of 420 feet, and entirely composed of pentagonal or octagonal columns, about six feet in diameter. One of these gigantic pillars, sixty feet long, has fallen down from the hill so as to form a bridge over a deep gully. Another remarkable rock is the Rinkesteen, near And Fiord, on the eastern side of the island, twenty-four feet long, eighteen broad, and from six to twelve above the water. This stone is so exactly poised, that it vibrates backward and forward with the slightest touch, yet though constantly rocking amidst the breakers, has never been moved from its place.

Next to this is Stromoe, the largest of all the islands, being twenty-seven miles long by seven broad, and containing 143 square miles, divided into two parishes. It is separated from the last mentioned by a narrow sound, a mile and a quarter wide, but contracting near Stromnes to about half a cable length, where the current is so strong that even ten men cannot row a boat against it. In this is placed Thorshavn, the capital of Faroe, and the principal trading station. It is built on the south-eastern side of the island, on a peninsula which divides the harbour into two, and contains about 100 houses, most of them mere huts, stuck in amongst the rocks without any regularity, whilst the streets are so narrow that scarcely more than one person can ascend them at a time. The entrance to the harbour is protected by a

fort, on which, however, there are no cannon, and the road to it forms the only tolerable walk about the place. The houses are covered with turf, and so closely resemble the surrounding soil that a stranger can hardly believe that he is in the neighbourhood of a town. This place is the residence of the principal official persons on the islands, and has a population of about eight hundred.

Westmannshavn, on the western side of this island, is a good harbour, but more remarkable for the flocks of sea-fowl that frequent the surrounding rocks. The Vogelberg, as it is called, lies in a frightful chasm, encompassed by inaccessible rocks said to be a thousand feet high. The entrance is by a narrow passage; on leaving which, one finds himself between the precipitous shores of the island on the one hand, and an equally lofty rock on the other, which shelter the enclosed space from every wind. Here nothing is seen but multitudes of birds. Thousands of guillemots and auks swim in groups around the boat, look curiously at the traveller, and vanish beneath the water to rise in his immediate neighbourhood. The black guillemot comes close to the very oars, the seal stretches his head above the waves, not comprehending what has disturbed the repose of his asylum, while the rapacious skua pursues the puffin and gull. High in the air the birds seem like bees clustering about the rocks, whilst lower they fly past so close that they might be knocked down with a stick. But not less strange is the domicile of this colony. On some low rocks scarcely projecting above the water, sit the glossy cormorants, turning their long necks on every side. Next are the skua gulls, regarded with an anxious eye by the line of kittiwakes above. Nest follows nest in crowded rows along the whole breadth of the rock, and nothing is visible but the heads of the mothers and the white rocks between. A little higher on the narrow shelves sit the auks and guillemots, arranged as on parade, with their white breasts to the sea, and so close that a hailstone could not pass between them. The puffins take the highest station, and though scarcely visible, betray themselves by their flying backwards and forwards. The noise of such a multitude of birds

is confounding, and one cannot hear even his next neighbour speak. The harsh tones of the kittiwake are heard above the whole, the intervals being filled by the monotonous note of the auk and the softer voice of the guillemot. When here, Graba was tempted by the sight of a crested cormorant to fire a gun. What became of it, says he, I knew not. The air was darkened by the birds roused from their repose. Thousands hastened out of the chasm with a frightful noise, and spread themselves in troops over the ocean. The puffins came wondering from their holes, and regarded the universal confusion with comic gestures; the kittiwakes remained composedly in their nests, whilst the cormorants tumbled headlong into the sea. But the confusion was soon over, and all returned to their former places and employments.*

Vaagoe, which is a large mountainous island, contains the most extensive sheet of fresh water in Faroe, the Sorvaagsvatn, and some curious basaltic rocks near the northern extremity, forming vaults and arches beneath which a boat can sail. One of the most singular is the Trollkonefinger, sometimes appearing like a huge finger pointing upwards, at others like a square tower surmounted by a spire, with a door and windows. Still farther west is Myggenæs, separated from the former by the most dangerous fiord in the islands. It is surrounded by precipitous cliffs from 1200 to 1400 feet in height, and is only visited by the clergyman twice in the year. Near it is the small islet or rock named Myggenæsholm, the only place in Faroe where the solan goose builds its nest.

South-west from Stromoe are the two small islands of Kolter and Hestoe, and on the opposite side that of Nalsoe or the Needle Island, thus named from the curious cave which penetrates it from side to side. To the south lie Sandoe and Skuoe, on the latter of which is seen the grave of Sigmund Bresteson, the hero of the Faroe Isles. The Greater or Store Dimon, is the most inaccessible of this remote group. The shore

* Graba, pp. 94-97, 100. 110. Landt, pp. 47, 48.

is every where so steep that no boat can be kept there, and the inhabitants live entirely secluded, only receiving an annual visit from the clergyman, who is pulled up by ropes. When Graba visited this island the sailors first pushed one of their number up the rocks with their long sticks as in bird-catching, who then drew up the others. In this way they mounted from cliff to cliff to a height of 250 feet, the process having been repeated several times. On his return he chose a shorter but scarcely less dangerous road, which descends a narrow path cut in the rocks, and then turning to the left, proceeds along the front of a precipice where holes are cut every three feet, in which one can fix the points of his fingers and toes. This continues forty feet, when another road leads to the beach. How steep the rock is may be understood from the fact that a basket with eggs of the wild birds, which he had collected on the island, was let down into the boat by a rope; yet along this frightful path did a drunken native pass with a sack of barley on his back.. This island is the greatest breeding-place for sea-fowl in Faroe, and, though scarcely a mile long by half a mile broad, more than 5000 puffins are caught in it every year. The inhabitants nevertheless complain of their decrease, as only thirty or forty years ago the number amounted to upwards of 20,000. Lille Dimon, to the south of this, is a small island of a conical form, only inhabited by numerous wild sheep, whose flesh is dark and tastes like venison.

Suderoe, the most southern of the whole, contains about forty-four square miles, and is very irregularly shaped, being intersected by several fiords. This island differs in many respects from the more northern, though the distance between them is only a few miles. The mountains assume a different form and contain peculiar rocks; the bays pierce more deeply into the land; birds, such as the field-lark, the swallow, the land-rail, seldom or never seen in the northern islands, go thither every year. The cultivation of the land is better, and the crops almost suffice for its inhabitants, who, it is remarked, differ in dress and language from the others,

are more active, industrious, and consequently in better circumstances. It also contains thick beds of coal and some very curious basaltic pillars. In one place the whole ground seems as if paved with the projecting columns, over which the shore is reached with some difficulty; and there they are seen arranged in the most singular colonnades or twisted into the form of an inverted S. Qualboe in this island is the finest village in Faroe, standing at the extremity of a bay, on whose shores smiling valleys, adorned by picturesque waterfalls, alternate with lofty mountains whose sides are scarred by the rock-slips, which are very common here, and are affirmed to happen most frequently between one and two o'clock in the morning; a phenomenon more difficult to account for from the equality in temperature and moisture of the day and night.*

The natives of these islands, though of the same origin with the Icelanders, and resembling them in many of their customs, were never like them given to literature. Their history is thus entirely dependent on foreign sources, and wants the unity and completeness of that of the more northern country. Even the time when the islands were discovered and the names of their first occupants are uncertain. The reason of this seems to have been, that, though known for a considerable period to the Norwegian pirates, and probably often visited by them during the summer months, they had then no fixed inhabitants. These strangers came, resided on them as long as it pleased their fancy, and then again resigned them to the fowls of heaven and their native loneliness. If we may trust the ancient chronicles, it was whilst engaged in a voyage thither that Naddod first discovered Iceland; an event placed in the year 861, before which they seem to have been well known. It was, however, only after Harald, in the battle of Hafurs Fiord, had destroyed the power of the petty Norwegian kings, that

* Landt, p. 33-66. Debes, p. 3-17. Hassel, vol. x. p. 215-218. Graba, Tagebuch, pp. 23, 24, 59, 171, 200, 202, 205, 207, &c.

they appear to have been chosen for a fixed habitation. The first settler of any note was Grimr Kamban, whose arrival there is placed in the year 868; but of this patriarch no record has been preserved, and it is uncertain whether it was he to whom his descendants, according to the Landnamabok, paid divine honours after his death. If, in the absence of more authentic documents, we may judge from the similarity of names, most of the colonists seem to have come from the Loffoden Islands. They themselves are proud of tracing their descent from a Scottish king, who, however, was only a Northman pirate, Thorstein the Red, who is understood to have had some possessions in the Orkney Islands.

Floki, the third discoverer of Iceland, also visited Faroe, and is said to have left one of his daughters there married to a chieftain, from whom some of the most powerful families in the country were descended. After this time nothing remarkable occurs in their history for about a hundred years, the division of the islands, each governed by its own chief and partitioned among his followers, preventing any quarrels. In 966, however, two brothers, Breste and Breinar, who lived on Store Dimon, were attacked by some other chieftains with whom they had a feud, and after bravely defending themselves for a long time against superior numbers, were defeated and slain. Each left a son, whom some of their opponents wished to kill in order to secure themselves from their future vengeance, but one more tender-hearted than the rest interposed, and it was thought enough to send them to Norway. Thrand, a relation of their own, who had been the instigator of the murder, and by it became the most influential man in the islands, wished to sell them to a Norwegian merchant, who refused to make the purchase. He however took them home with him, kept them for the winter, and, on departing for a long voyage to the east, gave them some money and left them to provide for themselves. After many adventures fitter for a romance than for history, one of them, Sigmund Bresteson, found his way to the court of Hakon, where he greatly distinguished himself; and soon after,

visiting his native place, he slew the murderers of his father, only sparing him who had preserved his life, and at the same time punishing Thrand by a heavy fine.

Sigmund after this returned to Norway, where he was present at the great battle with the Jomsvikingrs; and being afterwards converted by Olaf Tryggvason, he was sent in 998 by that zealous monarch to endeavour to christianize his countrymen. At a general meeting of the natives he informed them that he had been appointed ruler of the whole islands by King Olaf, adding the royal commands for the inhabitants to become believers. The people were willing enough to acknowledge his authority, but had no idea of changing their religion in this summary manner, and, headed by the wily Thrand, got the subject deferred to another time. The winter having passed over without any result, Sigmund determined to use stronger measures, and seizing Thrand by surprise, gave him the choice of becoming a Christian or of being immediately put to death. He at first chose the latter alternative, but the sight of the executioner changing his opinion, he consented to be baptized, and the other inhabitants soon followed his example.

This forced conversion, as might be expected, was far from being sincere, and Thrand, brooding over his injuries, at last resolved on vengeance. Collecting a number of his followers, he attacked Sigmund by surprise, and set his house on fire. Its master, however, escaped by a secret passage into one of those caves which pierce the islands, but the entrance being discovered, he was obliged to seek shelter somewhere else. He is said to have swum across the channel which separates Skuoe from Suderoe, a distance of nearly nine miles; but it seems more probable that his residence was on Store Dimon, which is considerably nearer the latter. When he arrived there, he lay for some time exhausted among the seaweed, till he was discovered by a dependant of Thrand, who, coveting a large gold ring which he wore on his arm, put him to death, and buried him on the shore with his friend Thorer, who had been drowned in endeavouring to accompany him. The chief, at a subsequent period, when

it suited his purposes, was the means of discovering the actual murderers, and of bringing them to punishment.

For a long time after this the Faroe Islands remained in peace, being governed by Thrand, or his son of the same name. They were nominally subject to Norway, but the tribute was very irregularly paid, and many of the ships sent to demand it were never heard of more, being either wrecked, or more probably destroyed by the people. This state of things continued till the reign of St Olaf, who, at the time when he endeavoured to subdue the Icelanders, made the same attempt on Faroe. He succeeded better there, for having induced all the chiefs to visit him in Norway, except Thrand, who feigning sickness remained at home, he compelled them to swear allegiance and promise tribute. But this was never paid; the ships which were sent for it disappeared one after another, till the king could get none of his subjects to undertake the voyage. A celebrated pirate, Karl Mære, offered his services, and arrived at Thorshavn in safety, but when he was employed in collecting the tax next year, he was slain in a tumult, and his companions returned without the money. Olaf wished to avenge his death, but was prevented by troubles at home, which ended in the loss of his kingdom and life.

Faroe was now for a long period forgotten by the Norwegian monarchs, and seems neither to have paid tribute nor acknowledged their authority in any other way, till the time of Sigurd Jorsalafare. Though the different chieftains were often contending with each other, yet their feuds have neither sufficient interest nor importance to entitle them to a place in history. But the fierce manners of these warlike colonists soon became extinct, Christianity took deeper root, and the inhabitants, leading quiet inoffensive lives, are no more heard of. In the reign of the king last mentioned, in the beginning of the twelfth century, they obtained a bishop, and the names of several of his successors occur in the old annals, but with nothing of importance attached to them.*

* This account of the history of Faroe is principally taken from Torfæus, who differs in several particulars from Debes (p. 180-

The islands, from their remote and exposed situation, have been often invaded by pirates and plundered of the cattle, the natives generally contriving to save themselves among the high rocks. These robbers were not unfrequently French, English, or Irish, a band of whom are said on one occasion to have been attacked and destroyed by the natives of Suderoe. In 1629, two Turkish ships found their way to this distant country, and cruelly abused the inhabitants of the last-named island, carrying many of them away into captivity. To prevent these incursions and the exactions of the English fishers, who, on their way to Iceland, used to stop here and take as many of the natives with them as they saw fit, the King of Denmark first sent a ship to cruise among the islands, and afterwards built the fort at Thorshavn.

Christianity, though forced on the people in the violent manner we have mentioned, was not forsaken by them when they regained their freedom. They continued Catholics till the Reformation was introduced into Denmark, when the king replacing the old priests with Lutheran clergymen, the whole of them were quietly converted to the new faith. The last popish bishop was Amund Olafsen, appointed in the year 1532. He was succeeded by Jens Riber, who having been several times plundered by the French pirates, left the country, and became Bishop of Stavanger in Norway, in 1556. No successor was appointed, the churches being subjected to a provost or dean, who was at first under the bishops of Bergen, and then under those of Copenhagen.

The great events of European politics but slightly influence the condition of these remote and unimportant isles. During the American war their position rendered them a convenient depot for colonial produce, whence it might be smuggled into Britain, and a considerable contraband trade with Scotland soon sprung up. As a consequence of the close connexion thus established, the

232). The Saga Fareyenga was published at Copenhagen in 1833, with translations into the Danish, German, and modern language of the islands; the original being in the old Icelandic.

English language became familiar to the Faroese, and was spoken by many of them for several years afterwards. During the French revolutionary wars, the Dutch and Danish trade to the East Indies was entirely annihilated, and an end having thus been put to smuggling, the natives were subjected to great privations. In 1808, the British government, in order to prevent these islands from being converted into a retreat for privateers, for which they are well adapted, despatched Captain Baugh, in the Clio sloop of war, to destroy the fort. According to the account of the Faroese, which, however, seems a little apocryphal, the ship appeared at first among the islands under French colours, but was recognised in its true character by an old sailor, who gave information of it to the commander. This officer sent out first one pilot boat and then another, which were both detained; upon which the English landed, blew up the magazine and destroyed the cannon, without a single shot being fired on either side.

The islands being thus left totally unprotected, a German, assuming the name of Baron Hompesch, having procured letters of marque, landed at Thorshavn and plundered the inhabitants of every thing valuable. The British government humanely refused to sanction these proceedings, and the money and goods were returned to the owners. On the occurrence of the disturbances in Iceland in 1809, our ministry, by an order in council, commanded the natives of that island, of Faroe, and Greenland, to be considered as stranger-friends, and permitted them to trade to London, Liverpool, and Leith. In 1811, the attention of the English cabinet was again called to their destitute condition, owing to all communication with the mother-country being entirely interrupted, and the Forward gun-brig was despatched from Leith to report on their state. The inhabitants, as it appeared, were suffering many privations from the discontinuance of the trade, in consequence of which, two vessels were permitted to resort thither every year, taking with them Danish goods, and receiving the produce of the islands in return. These ships were,

however, compelled to touch at Leith for licenses, which were renewed every year; but the peace of 1814 restored these colonies to the full possession of the Danish government, which has conducted the trade ever since.

Though so long separated from the original stock, the people of Faroe are still found to retain many of the characteristics of their Scandinavian ancestors. The greatest difference is in the southern islands, whose natives have a rounder face, speak more rapidly, and are more lively in their motions than those of the north. The Faroese in general possess open countenances, a healthy complexion, and more varied hair than the Icelanders. Brown is, however, the prevailing colour, and in most of the islands it is cut short, but in Suderoe, according to the ancient custom, it is allowed to hang in long straight tufts or ringlets over the shoulders, and sometimes reaches to the middle of the back. In their general character they still exhibit many of their paternal virtues, and with little education or art are an industrious contented race, the last quality, however, being apt to degenerate into a listless indifference. Their moral reputation is also very high, though their remote and inaccessible dwellings might seem destined only for a retreat of robbers and pirates. Theft is almost unknown among them, and though the doors are never locked, yet nothing is ever stolen, even when famine is raging in the land. To foreigners they are particularly attentive, ever ready to anticipate their wants, or to communicate all the information in their power. They appear to take great delight in conversing with them, without, however, pressing themselves on their notice, or interrupting each other in answering questions. Their hospitality, it has been well remarked, is, to a mind not altogether devoid of feeling, truly affecting. When a stranger approaches a cottage, the master meets him at the door, stretches out his hand, and bidding him welcome, leads him into the house. He then produces the brandy bottle, and filling a glass, first tastes it himself, and then presents it to his guest with a renewed welcome. After

this the females of the family make their appearance and salute the visiter,—a ceremony from which the amtman is alone exempted. In a peasant's dwelling Graba was treated to brandy, coffee, and other refreshments; then the wife, her husband being absent at the court, insisted on showing him the house and premises; when this was finished, he found another meal prepared for him; yet for all this it would have been thought a great insult to have offered any recompense, the lady thanking him for the honour he had done her poor dwelling, and compelling him to promise to remain some days with her if he again returned to that place. In every habitation there is a room set apart for guests, and never used by any of the family. The best food they possess is also set before them, and the only recompense that can be made or will be accepted, is a present to the wife or daughter of a few yards of ribbon or a silk napkin.

The Faroese are in general remarkably intelligent,—a circumstance probably occasioned by the varied nature of their employments, which improves and strengthens their mental endowments. Such are the propriety and acuteness of their remarks that Graba declares he would rather converse a whole day with one of them, than half-an-hour with a common German peasant. They are, at the same time, fond of reading, and eager for information on all subjects. Education was formerly conducted, as in Iceland, by the parents, the long winter evenings being employed for this purpose, as there was no school in the country. This is still the case in most of the islands, each father teaching his children reading, writing, and religion, as he himself was taught. About ten years ago, however, a school on the Lancasterian method was established at Thorshavn, and had soon an attendance of upwards of a hundred scholars. It was visited by the author now mentioned when at that place, who found the pupils possessed of a very extensive knowledge of reading, writing, arithmetic, and geography.

Even the very amusements of this people are more

simple than those found among many savage nations. Music, till it began to be taught in the school at Thorshavn, was hardly known even by name, though the children manifest no incapacity to learn it. With the exception of the Danish authorities it is doubtful if any individual in Faroe has a musical instrument. The singing in the churches is of the most defective character, many of the clerks, according to the writer just quoted, not possessing half the professional talent of a northern diver. Their dancing is equally simple with their music, and consists merely in twelve or sixteen of them taking each other by the hand, and moving slowly round, singing at the same time some traditionary tale or love-song. The airs are sometimes wild, and not without harmony, though in general rather monotonous. Often in fine weather they continue dancing in this manner for hours at a time, all dressed in their best clothes, and joining in the song.

The food of the Faroese is principally barley-meal or groats, milk, flesh, and fish; whilst bread, beer, and salt are reckoned among articles of luxury, and brandy is only drunk on festive occasions. The breakfast consists in general of barley-bread, with milk or fat, and in autumn, when the lambs are killed, of their blood boiled with milk. Dinner is formed of fish and water-gruel in which bones or suet has been boiled, or of soup made of meat and turnip-leaves. On holidays a large pot is put on the fire, in which sea-birds are boiled for supper. Among their greatest delicacies they reckon dried lamb, eaten raw with tallow, and dried whale-flesh, which has often hung in the air for more than twelve months, and is said somewhat to resemble in taste and toughness a piece of leather. The whale is also eaten fresh, and resembles coarse beef, with but little flavour. Several kinds of sea-fowl are used, of which the puffins are thought the best, to which they also add the guillemots and young cormorants. The quantity of fat consumed by them is enormous; and it is said that after the Faroese have feasted on a fresh whale for a fortnight, their faces, hands, and even their

hair, glance with the blubber, which seems as if oozing from every pore.*

The clothing of the Faroese consists almost entirely of woollen stuff of their own manufacture, as only the more wealthy have linen shirts. When in full dress the men wear a long frock of dark brown or black, reaching to the knees, and equally wide at the top and bottom. In front there is a row of buttons, the holes for which are sewed with red worsted. The waistcoat and breeches are of the same black cloth, and are in like manner adorned at the pockets and knees with red and white buttons. The stockings are of black, gray, or blue wool, and the shoes of one piece of yellow sheepskin, and are so thin and pliable that the toes can be used in climbing the rocks. The cap is generally striped with red and blue, and is about nine inches high. The attire of the females differs little from that of peasants in Scotland, except in the headdress. Young women wear the hair bare till they are married; after which it is combed back, and covered with a white linen cap, on which a stiff broad border of coarse lace rises perpendicularly, and is fastened under the chin by a coloured kerchief.†

Thorshavn being the only town in the islands, the most of the inhabitants live dispersed in small villages in the neighbourhood of the cultivated land. These boigdelags, as they are called, are always placed near the sea, usually where two mountains sink down so as to form a level valley, or where the declivity of the hill is such that the ground, generally of decomposed rock, can be tilled. The cultivated fields or indmark are surround-

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* Graba, Tagebuch, pp. 120, 145, 214, 228. Landt, p. 374-376. According to Debes, before using this tallow, it is first allowed to rot a little, and is then melted into cakes of 36 lbs. each, which are buried in the moist earth, and thought the better the longer they are kept. This is the great wealth of the natives; and as foreign pirates have little inclination to take it from them, "may therefore not unreasonably be termed a hidden treasure, which rust doth not consume, nor thieves steal away," pp. 264, 265.

† Debes, p. 270. Landt, p. 376-381. Graba, Tagebuch, p. 30-32.

ed with high stone walls, to protect them from the cattle which feed with perfect freedom in the udmarket or uncultivated ground beyond. The village consists of single houses, arranged in rows or groups, according to the nature of the locality. On some large unconnected stones, or the bare rock, they place cross-beams, to which six or eight upright posts are fixed, which form the skeleton of the house, and support a roof of boards covered with barley-straw or birch-bark from Norway, which is thought better for resisting the moisture. On this is placed grass turfs, from six to nine inches thick, on which is seen the first green of spring long before the verdure in the fields has begun to appear. The walls are covered with boards, those on the outside being placed lengthways, and protected by tar from the moisture; those in the interior run up and down, and are either smoothly planed or painted. In the rooms therefore nothing is seen but wood, even round the chimney and fireplace, yet fires are said to be extremely rare, as the timber when saturated with turf-smoke is not readily inflammable. In the poorer dwellings a hole in the roof serves for both chimney and window, being closed with a board during rain, and the apartment accordingly is at once dark and full of smoke. The better houses are more inhabitable, though often so low that one cannot stand upright in them. The best room, or strangers' apartment, has glass windows, a down-bed, chest of drawers, a long table, with benches or chairs, and is generally kept clean and neat. Next to this is a small kitchen or dairy, and then the common dwelling, here well named roegstue or smoke-room, in which the fire is placed either close to the wooden walls, or in the middle of the apartment. In this are beds for the family, tables, chairs, and their spinning-wheels and looms. Next is the house for the cows, composed of stones and carefully plastered with mud. Then follow the buildings for drying flesh and fish; the former of thin laths of wood an inch separate from each other, in which the sheep killed in autumn are hung up to dry, and often remain a year. The latter is merely a slight roof,

supported on stone pillars, in which the fish are suspended on sticks.*

The manner of life of this people is, as might be expected, simple in the extreme. They labour willingly and industriously, but their pride will not permit them to seek work. A servant never inquires after a master, and a fisherman will sooner starve than ask the proprietor of a boat to take him along with him. Both must look out for assistants, and these when procured always require to be treated as the equal of their employer. One of the clergymen having sent to some workmen to say that they must do so and so, received for answer that they did not understand the word "must;" if it was a command they would not follow it, but if a request they would willingly do what he desired. The pastor, offended at this, answered that they might understand it as they chose; to which they replied, that they would take it as a wish. Farmers in like manner have often to do the work themselves which they have ordered their servants to perform, and it is not unusual when one of the latter is called in the morning for him to reply, "I don't wish to get up." The great employment in the summer months is fishing, in which they are frequently exposed to the wind and rain during twenty-four hours, with nothing in the boat except a piece of dried fish, barley-bread, and cold water. When successful they sometimes gain a dollar a-day, but often return with a single fish, which must be divided between the proprietor of the boat, the church, and the four fishermen who generally go together. The storms also frequently prevent them from putting to sea for several days, and even at Thorshavn, fresh fish can hardly be procured oftener than twice a-week.

At other times, during the summer, the natives are employed in preparing hay, or cultivating their fields, which is done entirely with the hoe, as the rocky soil precludes the use of the plough. They have often to travel miles to look after their sheep, and they must

* Graba, Tagebuch, pp. 28, 85-88. Landt, p. 381-385.

sometimes run a greater distance before they can find a horse when they require it. There are no wheel-carriages in the country, and the turf is brought home from the moors in wooden panniers or baskets slung across the animal's back. Where the sea-fowl haunt, the natives are occupied some weeks gathering their eggs and young, or in catching the old birds. In winter both sexes are employed in spinning wool, and in knitting or weaving it into various articles of dress, whilst the long evenings are set apart for the instruction of the children.

There are few mechanics who follow separate trades in those islands, with the exception of some smiths and carpenters in Thorshavn and some other of the larger villages. Every one prepares all that he requires, making not merely his own woollen coat and shirt, but his own house and boat. There are accordingly few or no artificers in Faroe, and these are mostly self-taught, though the people seem naturally to have a mechanical turn. Landt mentions two who were comb-makers, and others who manufactured buttons of horse-hair; Graba found the sysselman of Waagoe famed for boat-building and making knives; whilst the same functionary in Suderoe made and repaired clocks and watches without any instruction.*

Such are the common employments of the natives of these islands, to most of which they have been led by the nature of the country they inhabit. For the same reason they closely resemble those of the inhabitants of the western isles of our own country,—

> "Where the plain harmless native his small flock,
> And herd diminutive of many hues,
> Tends on the little island's verdant swell,
> The shepherd's sea-girt reign; or, to the rocks
> Dire-clinging, gathers his ovarious food;
> Or sweeps the fishy shore; or treasures up
> The plumage, rising full, to form the bed
> Of luxury."

The most important, probably, of all these occupations are the fisheries, though they are by no means carried to such an extent as might seem practicable, and have latterly been less successful owing to the fish deserting the

* Landt, pp. 366, 367. Graba, pp. 72-74, 99.

shores or changing their ground. The pursuit of the cod and herring is preferred by the natives, and most of those caught are salted for exportation. Besides these they also catch the haddock, sey or green cod (*Merlangus virens*), torsk, plaice, and flounder, which are chiefly used by themselves. The taking of whales, though more lucrative, is only pursued when those huge animals approach their shores, and is thus very uncertain. Few words have a more agreeable sound to the Faroese than the word *grind*, whale. If mentioned in a company, every face brightens up with joy, and the intelligence that a shoal has been seen approaching the islands operates like an electric shock, the whole village, old and young, being instantly in motion. The grind is the ca'ing whale (*Delphinus melas*) of Orkney and Shetland, where it occurs in large herds, and measures about twenty feet in length and eight or ten in circumference. When Graba was at Thorshavn a number were discovered, and the signal was given by a jacket suspended from a mast. Immediately the joyful sound of "Grindabud" echoed from every corner of the town, and the streets were filled with men running to the boats with their whale-spears in their hands, whilst their careful wives followed them with some dried fish for food on the sea, the chase often lasting more than a day. In ten minutes eleven eight-oared boats were pushing out to sea, whilst two at the southern end of Nalsoe had already hoisted the joyful signal. Pillars of smoke were ascending from the surrounding islands, and the whole fiord was soon crowded with persons anxious to share the chase and spoil. The boats, at about a hundred paces from each other, formed a semicircle round the fish, urging them slowly forward to the bay of Thorshavn. Scarcely a fourth of the animals were visible,—sometimes one raised its head spouting out a column of water, and again only the high back-fin or a small part of the body was seen. When they tried to pass the boats they were turned back by stones or pieces of lead fastened to the fishing-lines cast into the sea. As they drew near the shore, which swarmed with men ready to begin the work of

destruction, they became more and more restless, pressing together into a close band, and paying less regard to the stones or blows of the oars. At the entrance of the Westervaag, which is about 250 paces broad and twice as long, the fish, tired of being driven forward like a flock of sheep, seemed about to turn, whilst the countenances of the pursuers betrayed a curious mixture of fear, hope, anxiety, and expectation. Raising a loud cry, they forced their boats into the herd, striking them with their harpoons. The wounded animals rushed forward with frightful rapidity, followed by the whole crowd, and soon ran themselves on the shore. Then began the work of death. The men in the boats hastened after the fish, piercing them with their lances, whilst those on shore rushed into the water, cutting them with their knives, or fastening a rope to the blowing-hole of the wounded, by which they were drawn to land and despatched. The dying animals beat the water furiously with their tails, or spouted out a stream of blood from their nostrils, so that the pure crystal of the harbour was soon converted to crimson. The character of the inhabitants seemed completely changed, and their faces, hands, and clothes stained with gore, with their inflamed countenances, in which no trace of compassion was visible, made them look more like the cannibals of the South Seas than the mild and gentle natives of Faroe. On this occasion it was found that eighty whales had been killed; and some that had escaped into the clear water, again returned and shared the fate of their companions.

After a short repose the division of the spoil succeeds, which is performed by the sysselman of the district, if possible in the presence of the amtman, as it is often impossible for the former to keep order amongst so many excited and interested individuals. The distribution is made according to old regulations; and it is curious that in Normandy, where this species of whale was formerly caught in the same manner, a law still exists regulating the division on the same principle. Each fish is measured, and its size marked on its skin in Roman numbers,—the tithe is then set apart, the largest whale given to the

boat which first discovered the shoal, then others for the poor and clergyman are selected, and the remainder are divided according to stated rules between the proprietor of the ground and the persons who drove them on shore. The flesh is either eaten fresh or cut into slices and hung up to dry, whilst the blubber is partly converted into train-oil or salted in casks or barrels, and, when these fail, in boats. The fat on the sides of the fish, when hung for a week or two, will keep for years, and is used instead of bacon by the natives.*

Besides this there is another species of whale, caught chiefly at Qualboe, in a very singular manner. This is the beaked variety (*Balæna rostrata*), which is from twenty-eight to thirty feet long. When an individual is seen on the surface of the water the fishermen gently approach it, and one of them tickles it on the back with an oar, by which it is so pleased that it allows another to stop up its blowing-holes with his woollen mitten or stocking, which prevents it from sinking. They then cut a hole in the blubber, carefully avoiding the flesh, through which they fasten a fishing-line, and pull it softly to the shore, where they quickly destroy it with their spears.†

The seals form another source of gain to the Faroese, and of them there are two species sought after: The first is the common seal (*phoca vitulina*), which is usually shot sleeping on the rocks; the other, the *phoca hispida*, is caught in the caves to which it retires to bring forth its young. The men enter these retreats in boats, and destroy with clubs first the old ones and then the calves. In some cases it is necessary to use torches, which blind the animals, and give the fishers an advantage over them, though they often, especially the males, defend themselves with great fierceness, and many of them escape. The females are more easily secured, either remaining by their young, or returning to them though they may have fled at the first. The mothers often push

* Graba, p. 222-233. Landt, p. 356-362. Debes, p. 171-177.

† This story seems rather marvellous, but is confirmed by all the writers on Faroe. See Debes, p. 179-181. Landt, p. 363. Graba, p. 205. The blubber of this whale is not eaten, as it imparts a yellow colour and fetid smell to the clothes.

the little ones into the sea, but even there, from their ignorance of swimming, their pursuers speedily despatch them. In each den there is an old seal called by the natives the latuverjar, or defender of the cave, which they are afraid to attack unless sure of assistance. Eight or ten seals are generally killed at a time in these recesses, but sometimes twenty or thirty, though they are now fewer and shyer than formerly. The skins are used for shoes, and the fat is melted into oil, but few of the people eat the flesh, though it is said to be well tasted.*

The inhabitants of Faroe use almost every species of sea-fowl for food, with the exception of the gulls, skuas, and cormorants. All the others, particularly the auks, guillemots, and puffins, are eaten either fresh, salted, or dried; and in May the population of many islands subsist entirely on eggs. The sea-fowl are here caught in three ways, either by the line from a boat, or by the fowling-pole or net. The last is the simplest and least dangerous method. To the end of a staff ten or twelve feet long, two other pieces are fixed like the prongs of a fork, at about eighteen inches from each other, between which is stretched a net with meshes about two inches wide. The fowler, provided with this instrument, is rowed under the rocks where the young birds on leaving the nest usually sit; when, as they are by no means shy, he easily casts the net over them; and, as they always seek refuge in the water, they push their heads through the meshes and remain hanging till pulled into the boat and killed by breaking their necks. The second method, by climbing the rocks from the sea, is more dangerous, and usually conducted by four in company. Two remain in the boat to collect the birds thrown down to them from above, whilst the other two, fastened together by a rope fifty or sixty feet long, ascend the precipice. The one scrambles up the cliff, assisted by his companion, who pushes him upwards by means of a small board fixed to the end of a long pole, till he has reached a place where he can stand securely.

* Landt, p. 344. Debes, p. 166-170. Graba, p. 208-214.

He then draws the second up by the line fastened to both their bodies, and this process is continued alternately till they have reached the shelves where the fowls haunt. On many of these the birds are so tame as to allow themselves to be caught with the hand; on others they are taken in the net as they fly past, and where plentiful, frequently two or three at a time, so that in a few hours some hundreds are killed and thrown down. In descending the process is reversed, but accidents, by the falling of the rock or slipping of one of the fowlers, often occur.

The last mode, which is at once the most common and successful, is by letting a man down from the top of the cliffs by a rope. This is about three inches thick, and from 600 to 1200 feet long, and is fastened to the waist and thighs by a broad woollen band, on which he sits. The fowler (fuglemand) is let down by this over the perpendicular rocks, the rope being prevented from chafing by a piece of smooth wood on which it slides. The daring adventurer soon loses sight of his companions, and can only communicate with them by a small line attached to his body. It requires great skill to prevent the turning round of the cord, the inexperienced being wheeled about in a circle, and thus exposed to great danger. When he reaches the terraces, often not more than a foot broad, he frees himself from the rope, fastens it to a stone, and commences his pursuit of the feathery natives. Where the nests are in a hollow of the rock, the bird-catcher gives himself a swinging motion by means of his pole till the vibration carries him so close that he can get footing on the cliff. He can communicate a motion to himself of thirty or forty feet, but when the shelf lies deeper, another rope is let down to his associates in the boat, who can thus give him a swing of 100 or 120 feet. When the labour is over, the man is drawn up by his companions. Where the rocks are less elevated, one person can fasten a line to the top and let himself down alone.

This occupation is attended with many dangers. The greatest care cannot prevent the rope from sometimes breaking: a stone detached from the cliffs falls on the

unfortunate fowler, or in swinging himself, he misses his footing and is dashed against the rock. When landed on the terrace new dangers await him: he may lose his balance and fall into the sea, or the projection on which he rests may itself give way. The number of fowls, however, caught in this manner, is sufficient to induce the hardy natives to risk their lives. They complain, indeed, though in some places without sufficient reason, that the birds are constantly decreasing. On a small dreng, or isolated rock in the sea, 2400 puffins, which are taken in their holes without any danger, have been secured in one year, and 5000 old birds, with their eggs, have been obtained in three days on Store Dimon. On Lille Dimon, the number formerly caught is said to have been 7000 annually, though at present it does not exceed 2000, and one man has been known to enclose with his net 950 birds in a single day.*

Nature has placed great hindrances in the way of any extensive cultivation in Faroe. The short summer is often interrupted by weeks of continued rain, during which the sun's rays seldom penetrate the thick mists and clouds. The soil of decomposed trap is fertile, but in general extremely thin, and broken into small patches by projecting points of rock, which prevent the use of the plough. In those places where the form of the land would permit it to accumulate in greater abundance, the cold damp climate has produced a formation of peat very unfavourable to vegetation. Agriculture is therefore, as might be expected, in no very flourishing condition, and the ground is prepared in a careless slovenly style. The manure is carried to the fields on horses' backs, or in some very steep places by men, and scattered on the fields, which are arranged in sloping beds or ridges running from the top to the bottom of the declivities. The seed is not harrowed, but mixed with the soil by spades, and the surface levelled by beating it with a flat board. The usual crop is barley, as no other species of grain succeeds, and even this

* Landt, p.333-345. Grabs., p. 110-117. Debes, p. 143, &c.

seldom ripens. Potatoes are increasing in favour, and turnips are also cultivated.* In Stromoe, the return is only, even in the most fertile spots, from six to eight fold; but in Sandoe and Suderoe sixteen or even twenty fold is not uncommon. The inhabitants are obliged to sow their own half-ripe shrivelled corn year after year, as the grain imported from Denmark has had its vegetative power destroyed by being kiln-dried. As no grass seeds are ever sown, the land, after the crop is removed, remains barren for three years, when it is again covered with grass, in which there is at first a large proportion of sorrel. This is succeeded by finer herbage, but in six or eight years the field must be again broken up to destroy the moss which chokes the grass. The hay harvest is exposed to great uncertainty from the frequent rains; and violent hurricanes often destroy the best hopes of a plenteous crop. The ears of the barley are commonly plucked off by the hand, and the corn trodden out by the women walking or leaping on a wooden floor. It is made into meal by a simple hand-mill, as it happens to be required for the family, though water-mills have lately been introduced. The cultivated ground does not amount to a sixtieth of the whole, and the inhabitants have to supply their scanty crops by importing barley, rye, and pease from the continent.

Gardening is much neglected in those islands, though many of our most useful vegetables would grow. Pease, salad, radishes, parsley, parsnips, carrots, and several species of cabbage, all succeed, though they suffer occasionally from the high winds. Several of the faci on the shore are eaten, and there are many wild antiscorbutic plants of great value to the natives. Various attempts have been made to plant trees in Faroe, but all without success, as they rarely survive the first or second winter. There are, accordingly, no fruit-trees in the gardens, if we except black and red currants, with a few wild berries.*

* Landt, p. 274-302. Hassel, vol. x. p. 211. The older experiments on raising trees will be found in Landt, p. 302-308, and some more recent ones, principally by the clergy, in Graba, p. 191-194.

More attention is paid to the feeding of cattle than to agriculture, the fields being in many parts covered with thick grass unmixed with any noxious weeds. This branch of industry might be greatly increased were it not for the difficulty of procuring hay for their winter food. The horses are small but spirited, strong and sure-footed. They seem of the Norwegian or Shetland breed, are of a dark colour, with large heads, and so low that the rider's feet easily touch the ground. They are seldom used for riding, and their whole caparison is in most cases nothing more than a woollen cloth and halter of the same materials, bits or stirrups being unknown. They receive no care or attention from their masters, being allowed to remain the whole year in the open air; and it is said that a good one may be bought for six Danish dollars, or thirteen shillings sterling. The cows are also small and ill-shaped, but from the rich pasture frequently become very fat, the carcass weighing eighteen or twenty stone. Their original sheep were a peculiar breed, but as others have often been introduced from Iceland and Shetland, they now vary much in different places. In the northern islands they are white, but in the southern brown or black, and the wool is of a tolerably good quality. They are either partly or altogether wild, and remain in the open field the whole year, except in the spring and autumn, when they are driven into enclosures. The first time is for the wool, which is not shorn, but, as in Iceland, pulled off the sheep. This appears more cruel than it really is, as only that part of the fleece which is ready to fall of its own accord is taken, and the rest suffered to remain fourteen days longer, when they are again collected. The whole wool is gathered into a heap and divided among the farmers in proportion to the extent of their ground. The sheep are again brought together in autumn, when those are selected which are to be killed. The flocks are sometimes pretty numerous, one peasant possessing from 400 to 500. The only other domestic animals are a few swine and dogs, the latter of which are so highly

valued that a cow is occasionally given in exchange for one.*

The farmers in Faroe are either proprietors of their land, named Odelsbond, or hold it from the crown on the payment of a certain tax, varying according to the quality of the soil. There are a few who rent ground from private persons, and others who live entirely by fishing. The population in 1769 amounted to 4775, of whom 4558 belonged to the class of peasants, 108 were citizens, and 119 were of the clerical order. In 1812 it had increased to 5209, of whom 2588 were males and 2621 females; the confirmed persons of the former sex being 1766, and of the latter 1815. Since that time it has continued to improve, and on the 18th February 1834 the islands contained 6928 inhabitants. For the credit of the people it may be mentioned that the illegitimate children only average from three to six in the year. Marriages cannot be contracted without the permission of the authorities, who sometimes refuse it when the parties are not able to show some means of supporting a family,—a circumstance often productive of bad effects. The inhabitants are extremely healthy and live to a great age, and an old man of ninety-three lately rowed the governor's boat nearly ten miles. The population, however, increases very slowly, though the islands could easily support considerably more, and but few diseases are prevalent among them. Of these fevers and rheumatism are the most common, and a curious epidemic sickness which often prevails after the arrival of the ships from Denmark in the spring, though it does not attack strangers. This is a kind of catarrhal fever named Kriim by the natives, many of whom think that it is brought by the captains of the ships in a box. It often proves fatal, and spreads so rapidly that in eight days from its appearance at Thorshavn, of 140 children only seven could attend school, and it was with great difficulty that ten men could be procured to work a boat.†

* Has., vol. x. p. 212. Landt, p. 308-333. Graba, pp. 130, 200-202.
† Hassel, p. 214. Landt, p. 407-414. Graba, pp. 89, 91, 117, 147, 191. It is somewhat singular that Pennant mentions a simi-

The trade of these islands is very inconsiderable, though of sufficient importance to be retained as a government monopoly. The principal exports are wool, woollen stockings, amounting to 112,000 or 120,000 pairs annually, jackets, train-oil, feathers, and skins. Tallow, fish dried or salted, and butter are also exported; but in small quantities, as they are mostly consumed by the inhabitants. The whole amount has been calculated at from 30,000 to 36,000 rixdollars, or from £3300 to £4000. The imports, of about equal value, are chiefly grain, fishing lines and hooks, wood, iron, lead, nails, gunpowder, tar, salt, brandy, tobacco, and a little sugar and coffee, together with a few books for schools, for amusement, and also for religious purposes. Two ships are employed in the trade, which together usually make five voyages in the year. It is the universal wish on the islands that this monopoly should be abolished, as the people are charged fifty per cent. above the real price for the articles imported, and receive as much less for those that they export. Even Graba, though a Danish subject, and a supporter of the present system, admits that the Faroese could both sell their own produce to better advantage, and supply their wants at a cheaper rate, in Scotland than at Copenhagen. But he thinks that, even if free, their trade would soon become a monopoly of one house, and the inhabitants be no better off in good years than at present; whilst they could not expect as much assistance from the government as they now receive in cases of want. Landt states that the profits of this trade amounted, in the thirty-one years from 1749 to 1780, to 197,237 rixdollars, but from this the other would subtract the loss sustained by the crown on corn, which is always sold at a fixed price. The best proof of the advantage of this commerce is its continuance, though to it we must ascribe the depressed state and apathy of the natives,

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lar disease as occurring in St Kilda immediately after the arrival of a stranger, and in the islands of the Pacific the first Europeans generally occasion some fatal malady, though themselves perfectly healthy.

which however it seems by no means the policy of their rulers to amend.*

As already mentioned, the ecclesiastical affairs were formerly conducted by a bishop, for whom, soon after the introduction of the protestant religion, a provost or dean was substituted. This person was subordinate to the Bishop of Bergen so long as the trade was carried on from that town, but when this intercourse ceased, the superintendence was transferred to the bishop of Copenhagen. There is now a provost or dean and seven clergymen, each of whom has from four to seven churches in his parish, in which he has to officiate. There are in all thirty-nine congregations; some, separated from the principal edifice by arms of the sea, are visited but once in six or seven weeks, and in two places only twice in the year. The people do not however neglect divine service in the absence of their pastor, but meet regularly in the church, where one of themselves reads the prayers and a printed sermon or homily. Worship is conducted entirely in the Danish language, which is understood by all the natives, and most of the clergymen are of that nation. This has a very bad effect on the intercourse between the ministers and people, as the former are always anxious to return home, and seldom remain more than six years in Faroe, after which they have a preference to the best livings in Denmark. That mutual friendship and confidence which can only grow up after years of acquaintance is thus completely lost. Formerly both the civil and ecclesiastical authorities were, with much reason, accused of intemperance and laziness, but this has now ceased to be the case, especially since the governor Von Tillisch established a library at Thorshavn, which in 1828 numbered 800 volumes, mostly historical and theological. The lan[illegible] of the people is scarcely ever written, though P[illegible]geology of [illegible] native of the islands, has translat[illegible]e rocks, of which [illegible] Matthew into it. This version h[illegible]ica-slate and granite. [illegible]mitive limestone, with

* Hassel, vol. x. p. 213. Landt, p. [illegible]rap rocks, occur. The 239-241.

the Danish Bible Society, but unfortunately to little purpose, as it is said that no Faroese can understand it. The revenue of the clergy, arising partly from voluntary offerings, church fees, their share (one third) of the tithes, and the produce of their glebes, is very inconsiderable, and by no means sufficient to compensate for the labours and privations they must undergo. The churches are extremely small, similar in construction to the houses of the peasants, and in general entirely destitute of ornament.*

The political government of Faroe is similar to that of Iceland, though on a smaller scale. At the head of the whole is an amtman or governor, who is at the same time usually commander at Thorshavn. The landvoigt is president of the court of justice, from which there is an appeal to the supreme tribunal at Copenhagen. The other members are the lagman or chief justice, the sorenscriver, and the six sysselmen, who, though without education, are the judges in their respective districts. The landvoigt is also president of the consistory or ecclesiastical synod of the seven clergymen. The revenue is principally derived from the taxes, tithes, quit-rents, and royal domains. Of the first the most important is a certain quantity of tallow or wool and so many skins paid by the farmers in proportion to the number of sheep which they possess or kill. The wool thus collected is sold to the natives of Thorshavn at a fixed price, the other produce being sent to Denmark. The whole revenue in 1790 was only 3172 dollars, and Hassel since then states it at 2700, which does not pay the expenses of administering the government. These islands are thus but of very inconsiderable importance to the crown; nor, unless a more liberal mode of management, and one better fitted to develop the internal resources of the country, be adopted, is ... sed ... ll probable that the revenue will in...

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generally occasion some fatal
healthy.

Landt, pp. 69, 415-421. Graba, pp. 43,

5. Landt, p. 414.

CHAPTER X.

Geology.

Greenland—ICELAND—Geographical Distribution of Rocks—TRAP FORMATION — Stratification — Regularity and Distinctness—Size—Veins—Extent—Walls of Diupavog—Horizontal Columns—Formation of Fissures—Constituents of Trap Rocks—Under Division—Neptunian Strata—Basis of the Island—Surturbrand—Fossil Plants—Date of these Strata—Upper Trap Rocks—Transition to the Trachyte—Origin of Trap—TRACHYTE FORMATION—Appearance and Composition — Cavernous Lava—Origin of Jökul Mountains — The Baula—Elevation of the Island—RECENT FORMATIONS—Lava—Arrangement of Volcanoes—Guldbringe Syssel—List of Volcanoes and Eruptions—Aqueous Deposites—Fossil Shells—Elevation of the Land—Effects on Climate—MINERALS—Calcedony—Zeolites—Iceland Spar—Copper—Obsidian—Sulphur—Mines of Krisuvik—Husavik—Geology of FAROE—Trap—Tuffa—Coal—Dip of the Beds—Veins—Conglomerate—Irregular Greenstone—Bone Bed—Mineralogy—Aqueous Formation of Zeolite.

THE Northern Ocean seems to form an immense basin bounded on the east and west by huge ranges of primitive mountains, and containing in its centre the volcanic foci of Iceland and Jan Mayen's Island. We already noticed the similar appearance of the opposite coasts of this ocean, and we may now observe that the identity also extends to their interior structure. Both these regions have been described in former volumes of this work, and we shall merely, for the sake of connexion, present a short summary of the geology of Greenland. Its mountains consist of primitive rocks, of which the most abundant are gneiss, mica-slate and granite. Besides these, clay-slate and primitive limestone, with porphyry, syenite, and various trap rocks, occur. The

most curious deposite, however, is the coal-formation, observed by Scoresby, in Jameson's Land, and which is regarded as belonging to the great carboniferous system, wherein so many plants of a tropical character are found. Brown coal, with embedded grains of amber, has also been described by Giesecke as occurring among the trap rocks of Disco Island. No signs of recent volcanic energy have been seen in Greenland, which in this respect presents a remarkable contrast to Iceland.

This island possesses a character unparalleled in any region of equal extent on the globe. Formed almost entirely of igneous rocks, we can, in its precipitous cliffs and mountain-defiles, trace a complete series from the old traps formed beneath the superincumbent ocean, to the most recent productions of the modern volcano whose stone-floods still retain their elevated temperature. These powerful agents have influenced the whole structure and appearance of the island, and are partly visible even in the moral character and history of its inhabitants.

In the first chapter of this work a full description was given of the physical features of Iceland. Its mountain-chains, extending from S. W. to N. E., the great desert valley enclosed by them, with its boiling springs and volcanoes, the bold rocky coast, and the deep narrow fiords, were all noticed. These peculiarities in the outward appearance are merely the signs of the difference in the geological structure of the interior. The dome-shaped jökuls, with the trough-like cavity between, are not more distinct from the terraced mountains and dark fiords of the coast, than are the massive trachyte rocks and lavas of the former from the horizontal traps of the latter. It is to these two formations, which compose almost the whole of Iceland, that we must ascribe the distinguishing features of its different districts; and a knowledge of their relative geographical position thus becomes of great importance, not for the geology of the land alone, but also for its history and statistics.*

* The striking contrast between these two formations is well marked in the accompanying engraving taken from the Memoir of Krug von Nidda.

Snæfell 5400 feet

Sea Level

Trap 100 ft

Lagur-

3500 ft

Trap of the East Coast

4000 ft

Outline of the Mountains on the East Coast

Trap

Trap

Trachyte Cone

Section of Snæfell

Profile of the Baula

Kollemulle Huk

Snæfell

Trachyte

Trap

View of the Lagarflot Valley from the Sea

Iceland, then, consists of two principal rock formations; the one presenting various traps arranged in vast horizontal beds; the other, trachyte, in huge unshapely masses, associated with volcanic tuffs, conglomerates, and lava streams. The boundaries of these rocks are in general extremely simple, being formed by two lines running nearly parallel from south-west to north-east. The first of these, in the south-east, passes from the mouth of the Lagerfliot, by the foot of the Snorfield, over Sniofell and the Klofa Jökul, to the southern coast. The second runs from the vicinity of Reikiavik, over Mosfell, westward of the volcanoes of Skialdbreid, Eriks, Bald, and Hofs Jökuls, in a north-east direction round the head of the Oe Fiord. These lines thus correspond to the chains of snowy mountains, most of which are enclosed between them. The included space, which is the trachyte-formation, is the seat of numerous volcanoes, and other channels of communication between the interior of the earth and the external atmosphere, which are nearly unknown in the rest of the island. The country to the eastward of the first of these lines is entirely trap, extending from the Lagerfliot to the Klofa Jökul, and comprising nearly the whole of the Mule Syssel. That on the north-west of the second, though almost similar, is yet more complicated; the trap in several places being broken through by the trachyte, the sources of which seem to lie at no great depth. The whole northern coast is trap, which also extends along the shores of the western peninsula. In the interior of the latter, however, we find the Glama and Dranga Jökuls, whose rounded form and icy covering might lead us to refer them to a central mass of trachyte. This view is confirmed by the pumice and slags brought down by the streams, and by the disposition of the fiords, which render it probable that these mountains are the culminating points of a semicircular trachyte nucleus.

The next interruption to the trap is found in the Sneefield Syssel, forming the long narrow promontory between the Breida and Faxa Fiords, which, from its root in the land to its extremity in the majestic jökul,

is altogether trachyte. In the line of its prolongation towards the interior, numerous volcanic cones and trachyte mountains connect it with the central mass of which it thus constitutes only an inferior branch. Some other hills of this formation occur in the valley of the Norduræ; after which, the whole coasts of the Borgar and Hval Fiords are composed of trap, which a little to the south joins with the trachyte.*

Every thing seems to point out the trap as the older of these formations, and we shall commence with it our more particular description of these rocks. This, as seen in the sections, presents a series of regular parallel beds, superimposed one on the other, and often extending as far as the eye can reach. These strata, as they may be called, vie in regularity with the true Neptunian deposites of other countries, in few of which is this peculiar structure better preserved, or seen on a more extended scale. The lofty walls of trap are divided into a hundred such beds, nearly horizontal, of which the uppermost is at once parallel with the lowest and with the one immediately adjacent. The imaginative skalds of former days saw in these curious mural precipices the labours of the old giants, who had expended their mighty powers in such majestic edifices: and even at the present day many of the natives give full credence to the sagas, and will not be persuaded that these wonderful buildings are, as they express it, the effect of chance.

Besides this division into horizontal strata, the trap, owing to its columnar structure, has also a tendency to separate, under the influence of the elements, in a perpendicular direction. The upper and more exposed beds first experience the destroying effects of the moisture, which insinuates itself into their fissures; and the frequent alternations of thaw and frost in those lofty regions, give it tenfold effect. The lower strata thus

* Von Nidda, Karsten's Archiv. vol. vii. pp. 423-427, 440, 442. Olafsen, th. i. pp. 142, 144, says that the original regular rocks (trap) occur in the Sneefield, dipping N.N.W. and W., over which the lavas have flowed. Compare Mackenzie, p. 167, &c.

project beyond the upper, and the whole mountain is cut into a series of terraces in the most regular manner. On these the snow often remains a great part of the year, and hence the hill forms a succession of alternating white and black bands; a circumstance which renders this structure visible even at a great distance, and enables the observer to determine the nature of the rocks, even where they cannot be approached.

As there is no reason to believe that these beds originally occupied their present position, it might be expected that they should bear marks of their elevation in a distorted and confused arrangement. But such is not the case, the mighty power which raised them from the depths of ocean having produced little change on their relative position. They are still nearly horizontal, and have only a slight inclination towards the central trachyte, seldom exceeding five degrees. This is not seen on the coast to which the outcrop of the beds is directed; but is easily recognised on the fiords which cross the strata in the line of their dip.

Many igneous rocks assume a stratified form which they do not really possess, having, either from some effect of crystallization on a great scale, or in the process of gradual cooling, separated into plates, the sides of which are nearly parallel. This appearance, however, is only external, there being no distinction in the composition of the mass. But this is not the case in the trap rocks of Iceland, which in proportion as they are examined disclose differences the more clearly marked. Each stratum denotes a peculiar period of internal activity, separated from those adjoining by intervals of repose; and even seen from a distance each may be traced by some peculiarity, strongly distinguishing it from the one above and below. Its extraordinary thickness marks one, another is composed of separate pillars, whilst a third is known by its colour. If we approach the mountain and examine the individual beds, other minuter characters, though equally constant over a long distance, appear. One stratum is a fine grained dolerite, another is porphyritic; one constituent part prevails in a

third, whilst the vesicular cavities of a fourth are filled with some particular mineral. By these marks the rocks may be traced over large tracts of country, and even where the continuity is broken by an arm of the sea, can easily be recognised on the opposite sides.

The thickness of the united strata cannot be determined, as only that portion which rises above the ocean, which we have no reason to think the most extensive, can be measured. The dimensions thus obtained give only the minimum, which the whole mass must exceed; but even this is sufficient to strike us with astonishment. Near the Beru and Röde Fiords it attains an elevation of 4000 feet, and though this sinks in other places to 2500 and 3000 feet, yet, assuming even the lowest of these as the average of the whole, and recollecting that this formation covers more than one half of Iceland, or 20,000 square miles, we may form some idea of the immense body of fluid matter that has issued from the earth. Some of the individual strata, which in general are fifty or sixty feet thick, and extend over several square miles, are not less striking, or less fitted to impress us with the vastness of the power to which they owe their existence. As this must have been all ejected in a fluid state at one eruption, the channels by which it found its way to the surface must be extremely numerous; and as each of the hundred strata which are piled one above another has its peculiar veins, the number that intersect those near the bottom must be incalculable.

The expectations excited by these considerations are fully realized by an examination of the rocks. The veins are not only very numerous, but present an equal variety of size and mineralogical character with the strata above. Some rise but a little way before they spread out and are lost in one of the beds, others pierce through several, and many ascend like ribbons to the summit of the mass. The connexion of the veins with the strata in which they terminate becomes very evident when we compare their contents, as notwithstanding the great variety in the composition of the latter, a

similar variety is found in the former. In all those which end in one bed we find the closest resemblance both to it and to each other, all containing the same mineral constituents disposed in the same manner. In many the fluid matter may be seen, as it were, flowing over and spreading out to form the tabular mass; an appearance which establishes in the plainest manner possible their mutual connexion and mode of formation. In their thickness they are equally varied, some measuring a hundred feet, whilst others are only two or three; yet the viscid matter is never found, as might have been expected, heaped up around the opening of the larger, but always extends in one uniform plane. They are also remarkable for their extraordinary extent, some having been traced through whole mountains for five or ten miles. One at Bulands Hoffde has been followed nearly fifteen miles, and, as it extends about a mile into the sea, is supposed by the natives to be the remains of a bridge built by a giantess across the bay.

In the same neighbourhood, near the commercial station of Diupavog, on the Beru Fiord, there is a very curious display of these veins, forming an instructive example of the numerous channels of communication with the interior of the earth. The strata have all been removed, and nothing remains except the solid contents of the veins standing like ruined walls. Though scarcely three or four feet in thickness, they are above a hundred in height, and at the same time so much inclined to one side, that it seems astonishing how they do not fall together. They run in all directions, some being parallel, while others intersect at the most varied angles, or even form cellular enclosures. He who inspects them seems to wander amidst the ruined dwellings and deserted streets of some mighty city.

Notwithstanding that these veins resemble the strata or beds in which they terminate in many points, they yet present a remarkable contrast in some other circumstances. One of these is the position of the prismatic columns into which they, as well as the connected rocks, are divided; and this, as being intimately associated

with their theoretical origin, is deserving of particular notice. In the trap beds, the pillars are generally perpendicular, or at right angles to the surface of the mass or planes of stratification, if we may use this expression. In the veins, on the other hand, they are horizontal or perpendicular to the walls, giving rise to that remarkable appearance of having been artificially built up, which has induced the natives to name them Trollahlaud or Giants' Mountains. The columns do not, however, extend continuously throughout the mass, but, like the cells in a honeycomb, form two series meeting in the middle, so that the heads of those on the one side correspond to the depression between three of those opposite. This peculiar structure is best seen after the stone is somewhat weathered or decayed, when we generally find an empty space in the centre. The whole phenomena are easily explained by the conditions under which the rock has cooled, and the contractions which would then take place. The loss of temperature would evidently be greatest on the sides where the vein was in contact with the colder rock; and as it consolidated, it would there separate into fragments, gradually extending into the interior in a direction perpendicular to the walls. The same rapid cooling of the exterior has produced that black vitreous coating which is found on the sides of the veins. It is from three-fourths to one inch thick, and is of a glossy brittle texture, gradually changing into a bluish-black basalt, and then into the crystalline greenstone of the centre.*

The manner in which the rents or fissures now occupied by these veins seem to have been produced is also

* We may here refer to the Klücker or Bell Mountain, as it is called, from the ringing sound of the stone, for a curious instance of the different positions of these columns. This hill, which properly belongs to the tracyhte formation, is situated near the foot of the Sneefield Jökul, and consists of countless pillars of grayish stone, full of numerous round cavities. On the top of the mountain the columns are horizontal, at the bottom perfectly perpendicular, and in the middle inclined; whilst many, especially of those near the summit and centre, are bent so as to form a segment of a circle.—Olafsen, th. i. p. 166.

extremely interesting. No change has been occasioned on the relative level of the disrupted portions, which still remain at the same elevation on both sides. From this it would appear that the separation of the rocks has been effected, not as is generally the case in other formations, by a vertical motion, but by the sides having been as it were pushed asunder in a horizontal direction. However difficult it may be to form an idea of the manner in which such a movement could be produced, some other appearances render its occurrence more than probable. Geologists are now familiar with the friction-surfaces of veins, produced by the violent rubbing together of the sides during their formation. In general these are marked by vertical lines or furrows corresponding to the direction of the motion; but in very many of the trap veins in Iceland they are horizontal, following the line of stratification, and leading us to conclude that this was also the character of the oscillations. These appearances are too distinct, too strongly marked, and of too frequent occurrence, to be denied or explained away. They are found not only on the walls of the veins, but also on their sides, where, as often happens, they project beyond the horizontal beds. However improbable it may seem, we are nevertheless compelled to admit, that the whole solid structure of the island has undergone numerous and violent horizontal oscillations.*

The essential constituents of these trap rocks are only three,—felspar, augite, and magnetic or titaniferous iron, substances which also form those of the modern volcanic rocks. They however enter into very numerous combinations, and in the whole series of strata no two will be found exactly alike. They are more or less clearly distinguished, not only by the different proportion of these minerals, but also by the size of the grain, the fracture, and the porphyritic or other kinds of structure. To these must be added the amygdaloidal concretions, and the zeolitic crystals, which do not less strongly

* Krug von Nidda, Karst. Arch. vol. vii. pp. 481, 485, 489, 514-519. Olafsen, th. i. p. 211. Henderson, vol. ii. p. 6.

mark the separate beds. To enumerate the various changes these undergo even in one mountain would form a work of great extent; we shall therefore only consider the larger and more remarkable divisions. The difference in the produce of successive eruptions gives us reason to expect a more extensive and complete change in the parts of the series farther removed from each other. According to the observations of Krug von Nidda, the upper and under portions are distinctly separated by several very characteristic peculiarities, some of which we shall now notice.

The under and older portion of this formation has a greater similarity to basalt and the more crystalline traps than the upper and newer. Its characteristic rock is a fine-grained highly crystalline dolerite or greenstone of a dark black and somewhat greenish colour. Augite is the prevailing mineral, excluding in a greater or less degree the felspar, commonly the Labrador, and appears to the eye like small black shining plates (blättchen), concealing the other constituents, and gives many of these dolerites the external appearance of some fine varieties of anthracite. The felspar, however, becomes visible on exposing the rock to muriatic acid, and the titan-iron may by means of a magnet be separated mechanically from the pounded mass in small grains of a metallic lustre. True basalts, in which the minerals are so intimately blended that the whole appears as one homogeneous mass, are nowhere found in Iceland; the augite, though never separating into large distinct crystals, always retaining sufficient magnitude to be seen by the naked eye, and giving the stone a granular structure. On rarer occasions the felspar has a greater share in the composition, and is more easily recognised, though still dark-coloured. Even then the rock is seldom coarse-grained, and those greenstones are most abundant in which the augite and felspar crystals are just so large as to be visible to the eye, though their limits are not distinctly marked. These dolerites are sometimes porphyritic, the felspar separating from the fine-grained basis in perfect crystals generally about half an inch

long; but, as already mentioned, the augite is never so defined or distinguishable.*

Connected with these greenstones are numerous varieties of wackes or clay-stones. In these the three simple minerals cannot be separately recognised, the whole being united into a various-coloured earthy mass with a powdery fracture. The greater number are coloured brown by a mixture of iron oxide, resembling brown clay-ironstone; many others are green from the decayed augite or green earth. These wackes are remarkable for the numerous beautiful minerals of the zeolite and quartz families found enclosed in them, which also occur, though less frequently, in the dolerites.†

Associated with this portion of the trap-rocks, and confined entirely to it, are some strata of undoubted Neptunian origin. On many points of the eastern coast, but particularly on the Röde and Beru Fiords, where these rocks have undergone the greatest elevation, an undoubtedly aqueous deposite occurs, forming the basis on which the trap rests. It is plainly stratified, dividing into thin tables usually with a distinct slaty structure, and separated by cross fissures into regular parallelograms. It has evidently been a stratified clay or loam, now converted by fire into a hard sonorous clay-stone; and the strata, wherever they contained iron, have a dark red colour similar to burnt tiles, and alternating with others of a lighter hue (bright yellow, blue, or gray) have a singular appearance, almost like the variegated sandstone (keuper) and lias formations. The vast number of trap veins that have pierced this deposite have completely altered its appearance, and in many places converted it into a kind of porphyry, with crystals of

* Mackenzie (p. 372) mentions basalt in the island of Vidoe and in some other places; but the difference between him and Krug von Nidda, whom we have followed above, is probably more verbal than real, the one excluding from the basalts all rocks in which the constituents can be discerned by the eye; whilst the other includes those which possess the columnar or so called basaltic structure. Compare Menge's Journey in Iceland. Phil. Jour. vol. ii. (1820) pp. 159, 167. Mackenzie also observed larger crystals of augite than his successor seems to have done.

† Von Nidda, K. A. vol. vii. p. 491-494.

fine quartz and long needle-like felspar. In other parts the stone contains round concretions, in the centre of which are often drusy cavities with beautiful yellow quartz crystals, in which three alternating sides have almost obliterated the remainder. Some portions that have been exposed to a very great degree of heat are changed into a dark blue obsidian of a slaty texture. The strata are every where thrown into the greatest confusion, and present a remarkable contrast to the regular trap rocks above them. On the Horne Fiord the stratification has been completely destroyed, and the whole converted into a mass of porphyry, still, however, perfectly distinct from the trap, by numerous veins of which it is traversed. This very singular formation also occurs at Mule on the Lagerfliot, thus extending completely under the whole trap of the eastern coast. It is, however, unfortunately so altered by the igneous rocks superimposed on it as to furnish no data for determining the geological age.

Higher up in the series we find other Neptunian beds, alternating with the trap, though still confined to the under division. These are strata of clay, fine conglomerates, and sandstones, with a large basis of clay (thonbindemittel), and are mostly of a bright yellow colour, though sometimes, as near the Beru and Hammar Fiords, stained dark or blood red from the oxide of iron. They are dried and hardened by heat, though the intensity of it has never been so great as to melt them completely, and they still adhere to the tongue and imbibe moisture. They are plainly a mechanical deposite from water, formed in the quiescent intervals of igneous activity. As already mentioned, they are principally clay, with grains of sand, seldom larger than a pea, which, as far as can be determined, are fragments of the surrounding black dolerites. Sometimes three or four such strata appear enclosed in the greenstones and amygdaloids from twenty to thirty feet in thickness; but they are not regular in their extent, either thinning out and altogether disappearing, or diminishing to narrow threads (bestegen), and again increasing

to their former magnitude. However numerous and large they may be, they never lose their subordinate character, but still remain inconsiderable compared with the great mass of trap, so that there is no reason to suppose them the remnants of former mountains, between whose strata the latter have been injected.*

These Neptunian layers often contain beds of the bituminous wood called surturbrand by the Icelanders. This curious mineral is found in small quantities on the eastern coast, chiefly near the Vapna Fiord, but in far greater abundance on the western, especially in the valleys of the Hvitaæ, Thueræ, and Norduræ, and on the north in the mountain-passes of the Skaga and Oe Fiords. The most extensive deposites, however, are in the north-western peninsula, where the clay-beds, with the enclosed vegetable remains, preserve a remarkable constancy over a great space, being observed in almost every fiord and chasm of the proper depth. From the nearly horizontal position of the strata, the surturbrand is almost at a uniform elevation above the sea; but as this rarely exceeds a few hundred feet, it is often concealed beneath the heaps of rocky fragments which cover the bases of the mountains, and hence is mostly found in deep ravines and water-courses. In this peninsula there are generally three layers of surturbrand, the highest 600, the second 150, and the lowest only a few feet above the sea-level. That in the middle, which is from three to four feet thick, and composed of an equal number of parallel beds, is the best, the other two being thinner, more irregular, and of a worse quality. In the Laksbierge, however, there are four beds from two to four feet in thickness, the two lower furnishing the best fuel.

There are two principal varieties of this bituminous timber. The one is pale-brown, very like fresh unaltered wood, and is so well preserved as, in many instances, to be cut by the natives into tables, dishes, and ornamental articles. The other is black and shining like pitch coal,

* Von Nidda, K. A. vol. vii. pp. 424, 483, 494-496, 524-525.

and generally retains the woody structure. Both varieties may be found united in the same fragment, and are sometimes converted into an earthy friable substance. The surturbrand is usually associated with beds of slate-clay, black, dark-gray, or most commonly ash-gray in colour. In some yellow clays found with it at Tiornas in North Iceland, fragments, the size of swan eggs, of a hard ferruginous sandstone, occur. At Bardestrand the gray-coloured slate-clay contains very many impressions of leaves, exhibiting in a most beautiful manner all their veins, ribs, and fibres. Some pieces of the slate are almost formed of them alone, and when separated from each other, they are not thicker than a sheet of writing paper. It is curious that the under side is black, and the upper of an ash-white, exactly, it has been remarked, as happens to a leaf that lies long on wet ground. They are also all placed parallel with the shore, and, according to Olafsen, closely resemble those of the willow, birch, and oak, some of the latter being as large as a man's hand. The principal specimens found by Henderson were of the common poplar (*Populus tremula*), whilst others were referred by Hornemann to the tacamahac poplar (*P. balsamifera*), a native both of Siberia and North America." Below the second bed of surturbrand, where these leaves occur, there is, according to Olafsen, a stratum of vegetable clay. They are found only in a few places, most of the wood appearing like large trunks of trees, on which marks of branches five or six inches in diameter are found. The clay, often not above a few inches thick, interposed between it and the trap-rocks, has yet preserved the wood from being charred by the fiery mass, though the immense weight has compressed trees a foot in diameter into thin flat plates.

Many points regarding this formation are still extremely problematical. Some consider it as belonging to the common carboniferous system, others, as Garlieb, refer it to the brown coal, whilst Von Nidda thinks that it agrees with neither of these, which are regarded as coast-formations. Most writers concur in deriving

the materials from the drift-wood, the trees being in general deprived of their branches and otherwise wasted, like those cast on the shore in our own times. The only difficulty in this supposition is the occurrence of leaves in such a state of preservation as will not permit us to suppose them to have been long exposed to the action of the sea-water. At the present day,* however, trees are often thrown on the coast with all their roots, and others arrive enclosed in the drift-ice. In this way the most delicate leaves might be conveyed an indefinite distance, without undergoing any change after they were, so to speak, embalmed in the ice, and we may thus perhaps account for their occurrence in some very rare cases.*

Notwithstanding the scarcity of fuel in Iceland, the inhabitants make but little use of the surturbrand, from the difficulty of digging it and the small dimensions of the beds. In no place are any regular mines of it found, and they only employ it where the steepness of the mountains, or the small streams, by removing the superior strata, expose a new layer every year. In these spots they collect the scattered fragments, or dig out the more accessible portions, and use it for smith-work after charring it in little pits covered with earth.†

The upper division of the trap is distinguished by the prevalence of the common and glassy felspar, and the diminution of the augite. Magnetic iron is equally abundant as in the lower portion, giving the stone a

* Göppert (Bemerkungen über die fossile Flora Schlesiens, Karst. Arch. vol. ix. p. 586) states that the fossil flora of the Quadersandstein (Keuper, &c.) is very different from that of the coal-formation, and probably of a later and perfectly distinct epoch. Instead of the stigmarias and gigantic reeds there are only sea-plants or fuci, mixed with palms, and leaves very like those of our willow, poplar, and maple, though different when closely inspected (unsern Weiden, Pappeln, Ahorn ähnlichen, aber bei näherer Untersuchung verscheidenen Blättern). If these were the same with the remains found in Iceland, it would go far to fix the age of these trap rocks. The inferior Neptunian strata also resembled the same deposites.

† Olafsen's Reise, theil i. pp. 81, 219-222, 272; theil ii. p. 26-28. Henderson, vol. ii. pp. 11, 80, 114-121. 125. Von Nidda, K. A. vol. vii. p. 496-502.

higher specific gravity than is common in felspathous rocks, and the small iron-black points appear more distinctly on its surface than in the dark dolerites. There occur numerous fine-grained mixtures of felspar and magnetic iron of a light-gray colour and weak glimmering aspect. The augite only gives to the mass a light green tint, and is not visible in starry concretions or distinct crystalline plates, except near the boundaries of the lower greenstone series. These rocks, as well as the upper ones of the former division, are generally porphyritic, and have large crystals of glassy felspar separating from the mass. Amygdaloids are rare, whilst the wackes and clay-stones, with their beautiful zeolites and quartz, vanish with the dolerites. The only associated mineral is the chabasite, filling rents and fissures in the rock rather than vesicular cavities.

In this portion of the trap series we find the transition to the trachytes. Its disposition in horizontal parallel beds, and its formation from veins, connect it with the former portion, and show that it was produced under similar conditions; but its mineralogical composition and porphyritic structure so closely resemble that of the trachyte that it is almost impossible to distinguish them. The transition from the one to the other is completed by numerous intervening steps, and there are many districts where it is impossible to tell to which formation they belong. Nature seems to have passed from the one class to the other, not by a sudden start, but by slow degrees, and a gradual yet undeviating progress.*

Though at first sight these rocks might seem to justify the opinion once prevalent of the Neptunian origin of the flöetz trap,—their stratification being more brought out, and on a larger scale, than the veins or canals by which the fluid matter escaped from the interior of the earth,—yet a closer inspection soon dispels the illusion. Their highly crystalline character,—their close connexion with the veins,—their resemblance

* Krug von Nidda, K. A. vol. vii. p. 502-505.

to the volcanic products around,—and the analogy of other lands compel us to refer them to an igneous source. The progress of geological opinion has now united all writers in this theory as to their origin, and it only remains to point out the cause of some of their peculiar appearances. Though agreeing nearly in chemical composition with the trap rocks, the lavas which flow in the open air have a more rugged and porous aspect, are more generally disposed in currents of which the length greatly exceeds the breadth, and seldomer contain calcspar, zeolite, or other minerals. These differences must be owing to the peculiar conditions under which they were formed, and trap rocks are now generally regarded as the product of submarine volcanoes. The vast pressure of the superincumbent ocean would not only contribute to spread out the lava into a thin sheet, but, by preventing the escape of the enclosed vapours, preserve its fluidity for a longer time, and thus contribute to the perfect horizontality of the beds. It would also promote the formation of the amygdaloidal minerals, by preventing the escape of their gaseous constituents, whilst others might be produced by the substances contained in the sea-water uniting with the silex of the melted mass. The lava flowing along the bottom of the ocean would naturally assume the form of the trap rocks of Iceland, and like them, be surrounded by precipitous cliffs, and intersected by deep fissure-like chasms. In the periods of repose, again, the sea would accumulate Neptunian strata on the surface of the beds, the materials proceeding either from the destruction of the inferior rocks, the debris of already existing lands, or the loose matter thrown out by the volcano; or substances from all these sources might be united, as seems to have been the case in Iceland. The formation of this series of rocks might go on for a long period, during which the gradual filling up of the ocean, or the altering of the matter contained in the volcanic foci, would occasion changes in the resulting rocks similar to those now described in Iceland.

This mode of formation explains a singular phenomenon in the trap rocks, especially those of the mountains Essian and Akkrefell, first noticed by Mackenzie during his visit to that island. The under surface of many of the strata is covered with a red, porous, slaggy crust, one or two inches thick, and with no remains of crystallization. He explained this fact by supposing that the lava poured out on the cold moist bottom of the sea was quickly cooled, whilst the steam thus formed, finding no way to escape, produced the cavities in the porous mass above. No such appearances are seen on the upper surface, whence the vapours escaped into the superior fluid without affecting the rock.*

The trachytic formation is far less known than the rocks we have now described. Research in the interior is almost precluded by the vast snowy mountains, the heaps of lava, scoriæ, and volcanic ashes, and the dreary inhospitable wilderness where there is no human dwelling to shelter the traveller, no spring to quench his burning thirst, no blade of grass to refresh the eye, wearied with the savage monotony of the scene. The trachyte rocks are composed of pure compact felspar, in which small crystals of the same mineral occur, giving it the coarse texture and harsh roughness from which it derives its name. It varies much in appearance and composition, sometimes approaching to the dolerites, at other times to the modern volcanic rocks, so that it is impossible strictly to define its limits on either hand. It is often converted into pumice, which owes its light, porous, and often thread-like fabric to the escape of the included vapours. The cavernous lava of Sir George Mackenzie seems to belong to this formation, differing in character from the modern rock of that name. According to his account, it does not appear to have flowed, but has been heaved up into huge blisters from two or three feet to forty or fifty in diameter, and either round or stretching into long winding caverns. This is caused by the more imperfect fluidity of the trachyte, which, for

* Mackenzie, p, 376, &c. Von Nidda, p. 550.

the same reason, seldom spreads over large surfaces, but is disposed in thick masses or hummocks. It seems also to have issued from wider rents than the largest even of the trap veins, and in this way also to have been more accumulated around its source.

We have already mentioned the geographical distribution of this formation in a broad band across the island; an arrangement which is very common in trachyte districts, and agrees well with the other characters of the rock and the huge veins or fissures it occupies. The jökul chains on its sides exhibit all its peculiarities, both in external form and internal relations. The soft viscid mass of the trachyte has risen up like domes over the expansive force below. The mountains, accordingly, have a soft rounded form, with long flat summits and gently sloping sides. The huge masses of volcanic conglomerates and tuffs give them a rough shattered appearance, perpendicular or overhanging precipices alternating with deep ravines; but when some miles distant their beauty and regularity astonish the spectator. The name of the Skialdbreid or Broadshield, denominated from its resemblance to that old weapon of defence, well marks their peculiar form.

In the Norduræ, and some other adjoining valleys on the western coast, the igneous sources seem to be situated at no great distance from the surface. Hot springs and volcanic cones are very common, leading us to expect the appearance of the trachyte. This rock is found in the Baula mountain* about 3000 feet high, and recognised even from a great distance by its beautiful conical shape, and dazzling white colour towering above the surrounding hills of dark trap. Its singular appearance has attracted the notice of all travellers, and made Olafsen conclude that it must have been produced by the deposition of the hot springs. This idea, so characteristic of the country, is found to be incorrect, the stone being a trachyte, with a light yellow felspar basis and white transparent needles of the same mineral.

* A view of this remarkable eminence is given in the plate.

Professor Forchhammar found that it contained sulphuric acid, and thereby approaches to alum-stone. The sides rise at an angle of nearly 40°, and for half the height are formed of horizontal strata of trap, on which is superimposed the trachytic cone. This last is composed of remarkably beautiful columns, of various dimensions, but with no regularity in their position. The foot of the hill is covered with an innumerable multitude of such pillars, which have been detached from the summit and rolled down the steep declivities.

The trachyte, occupying the centre of the country, is regarded as a later formation than the trap, and has given rise to the following theory as to the formation of the island. The last of the former series began, as we saw, to approach to this in character, and, at the same time, the veins by which it originally found vent to the surface became closed up. The confined fluid lava thus accumulated in immense profusion, till the rigid covering of trap, no longer able to resist its energy, burst asunder into a frightful chasm, which was immediately filled by the trachyte. The outlet, however, not being sufficient, the trap was forced up along with the rising mass, which, still continuing to ascend on the sides, formed the majestic chains of the jökuls. The lava contracting, on becoming cold, sunk down and thus gave the trap strata their slight inclination towards the interior. The latter being, at the same time, more elevated in the middle, at least on the eastern coast between the Rödc and Beru Fiords, has separated into an innumerable number of parallel fiords and valleys, all running perpendicular to the central trachyte. This uniformity, in the direction of the fiords and valleys, was long observed before its explanation was found in the geological structure of the island.*

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* Mackenzie, p. 389, &c. Olafsen, th. i. pp. 2, 45, 74, &c. Von Nidda, K. A. vol. vii. pp. 425, 434, 437, 441, 455, &c. The theory, of which we have given a sketch above, is that of the last author, and is supported by many ingenious arguments and illustrations. It is, however, we think liable to some objections, and the formation of the jökuls may be better explained by a series

Besides these older and general formations there are some others more partial and recent, produced by the igneous and aqueous agents at present existing. Of these the former are generally connected with the trachyte rocks, of which they are in some degree a continuation, as the latter were of the trap. The most extensive of these volcanic productions is lava, found in many parts of the land in a great variety of form and colour. Proceeding from trachytic rocks it is of a similar nature, consisting of a felspar basis, with crystals of glassy felspar, and sometimes contains olivin, but never augite. It generally forms long currents, though sometimes spreading out into wide beds of various depths, those around Hekla being in many instances 70 feet, whilst that from the Skaptafell was in several places 100, and in some not less than 500 or 600 feet thick. It is seldom possible to trace the currents to their source in the crater, as the eruptions generally terminate by throwing out a vast quantity of red slags and other fragmentary matter which cover the sides of the cone. Hence it is only where these have fallen in less profusion, or have been subsequently removed by the rivers, that the lava is first seen. Even during the progress of the eruption these loose substances, together with white or brown pumice and volcanic ashes, are often ejected, and cover vast tracts of land. Thus, in the case of the Katlegia in 1755, the sand in the plains was one or two feet thick, and in some valleys near the mountain even four or six feet. The melancholy appearance of these districts has occasioned them to be called by the natives Hraun or Hröin, a word meaning ruin or annihilation.

The volcanic mountains in Iceland are arranged in a linear direction, running north-east and south-west, parallel to the trachyte band, and also to the opposite coast of Greenland. Most of the jökuls are of this class, though all of them have not been in eruption since the

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of eruptions from two parallel rents, the existence of which is shown by the volcanic phenomena we are about to notice The theory is, however, valuable, as presenting a clear and striking view of some of the most remarkable phenomena in the island.

island was inhabited. Of this kind are the Smorfield and Sniofell, on the eastern coast, whose form attests their volcanic origin. The jökuls behind the trap hills and promontories on the same coast are too little known to permit us to point out any active vents there, though it seems probable that they exist. On the southern coast they are very numerous. Oræfa, the highest mountain in the island, has been known as such from the earliest times; but its devastations have always been confined to ashes and pumice, with vast debacles of water, no lava having ever issued. More in the line are the Skaptar and Sida Jökuls, followed by the Katlegia, and ending on the mainland in the splendid bell-shaped dome of the Eyafialla. Little or no lava seems to have been given out by the three volcanoes last named; but this mineral is again found in the largest of the Westmanna Islands, together with a cone of eruption. This group may therefore be regarded as a continuation of that system. The Tindfiall and Hekla, lying more in the interior of the island, seem to form a branch of this chain, the line joining their summits meeting the former almost at right angles in the Eyafialla Jökul.

The other side of the trachyte valley has also its volcanic chain, parallel to that now described. Most of its summits are placed in a line running from Reikianes to Langanes, on the north-east of the island, which may thus be regarded as its continuation. The first active sources, however, are Krabla, the Myvatn and Leirhnukr, connected with which are Herdubreid and the Trolladynger, which have contributed to form the Odaada-hraun or Horrid Lava in that district. Next follows the Hofs Jökul, at the foot of which we find many craters and lava tracts, particularly the Lambahraun. The chain is continued in the Bald and Geitland's Jökuls, in the lava from the latter of which the cave of Surtshellir is placed, and ends in the Skialdbreid. No lava has flowed, since the island was inhabited, from any of these jökuls, but numerous beds of it lodged on their sides and base show that this state of quiescence

has been frequently interrupted at a former period. South of the Thingvalla Vatn the volcanic deposites again rise into a steep rugged chain, about 2500 feet high, which, traversing the whole of Guldbringe Syssel, ends near Cape Reikianes. The whole of this province is one wild, waste lava field, aptly characterized as "a congealed pandemonium." Fixed masses of trachyte rarely occur in it; but volcanic tuffs and conglomerates, heaped upon each other in inextricable confusion, innumerable cones of eruption, and more extensive lava-currents than are to be found in any other part of the island, cover its surface. In this case as in the former system the line is continued under the ocean to the Geirfugla Skiaer, and numerous eruptions have occurred still farther out at sea. The promontory of Sneefield Syssel also bears marks of recent volcanic energy, and is united by the cones in the valley of the Nordur with the northern chain, of which it thus forms a subsidiary branch in the same manner as Hekla does of the southern.*

* Von Nidda, K. A. vol. vii. p. 457-471. Von Buch, Poggendorff's Annalen, vol. lxxxvi. p. 17-20. Olafsen, th. ii. p. 22, &c. Mackenzie, pp. 249-254, 369. Gliemann, pp. 87, 104, &c. Some more popular details regarding the volcanoes will be found in the first chapter of this work.

We subjoin a list of the Icelandic volcanoes, with the dates of their eruptions:—

Hekla, 1004, 1029, 1105, 1113, 1157, 1206, 1222, 1294, 1300, 1340, 1374, 1390, 1436, 1510, 1554, 1583, 1619, 1625, 1636, 1693, 1728, 1754, 1766.
Guldbringe Syssel, 1000.
Eyafialla Jökul, 1612, 1821.
Solheima Jökul about 900, 1245, 1262, 1717.
Katlegia or Myrdals Jökul, 894, 1311, 1416, 1580, 1625, 1661, 1721, 1727, 1755, 1823.
Skaptar Jökul, 1783.
Sida Jökul, in tenth century, 1753.
Skeidaræ Jökul, 1725, 1727, 1827.
Oraefa Jökul, 1362, 1720, 1727, 1755.
Hnappafell's Jökul, 1332, 1772.
Heinaberg's Jökul, 1362.
Trol'adynger, 1151, 1188, 1340, 1359, 1475, 1510.
Herdubreid, 1340, 1510, 1717.
Krabla and Leirhnukr, 1725-1730.
Grimsvatn, 1716.
Elldborg, ninth century, first known in the island.
Submarine eruption, Breida Fiord, 1345.
Submarine, Reikianes, 1211, 1226, 1238, 1240, 12—, 1340, 1422, 1583, 1783, 1831.

* Henderson states that Biarnarflag and Hitahol were in eruption during the last century. The author is aware that the list now pre-

The cause of these terrible phenomena does not come within the scope of this work, yet we may state that the facts recorded respecting those in Iceland seem to agree better with the supposition of their being the effect of partial yet similar causes, such as the oxidation of the metallic bases in vast subterranean laboratories, than with that of their proceeding from the general fusion of the earth's nucleus. Their eruptions are all partial, disconnected, and succeeding each other at irregular intervals. The most powerful and active are, at the same time, with a few exceptions, near the coast or large bodies of fresh water. Neither do they show any marks of decreasing energy, for some of the last equal or even surpass the most remarkable in former ages. Connected with this subject we may mention Olafsen's experiments on the internal heat in the vicinity of the hot springs of Laugarnes and Krisuvik. Though the greatest depth was only thirty-two feet, in which he pierced through eighteen different strata, yet the temperature was found to increase and decrease several times. It was greatest in a bed of bluish-gray earth about twenty feet down, and the natives told him that in digging turf in the mosses twenty-eight feet deep, they find three or four beds of blue and reddish-yellow clays which have a sensible warmth.*

Aqueous agents are also forming considerable deposites at the present day. The calcareous and siliceous sinter from the hot springs is often very considerable; the concretionary sediment of the latter in the vicinity of the

sented is far from being complete. It is, however, more so than any previous one which he has seen; that given by Mackenzie, and copied in most of our recent English works on geology, only containing the names of nine volcanoes, with forty-two eruptions, of which twenty-two were from Hekla; whilst in that above there are nineteen vents and seventy-seven eruptions. These have occurred in about ten centuries, or, on an average, one in thirteen years. The most violent paroxysms seem to have occurred in 1340, 1362, 1725-1730, and 1754-1755. To complete this view of internal activity, we may add, that the following years were distinguished by violent earthquakes: 1181, 1182, 1211, 1260, 1261, 1294, 1300, 1311, 1313, 1339, 1370, 1390, 1391, 1552, 1554, 1578, 1597, 1614, 1633, 1657, 1661, 1706, 1755, 1784, 1789, 1808, 1815, 1825.

* Olafsen's Reise, th. ii. p. 164-169.

Geysers forming a mass, said by M. Robert, to be not less than four leagues long? The debacles of water, too, issuing from the volcanoes, frequently fill the valleys with vast heaps of debris swept down from the mountains. The rapid rivers, especially those from the jökuls, constantly coloured by the matter they contain, must also, in a country liable to so many changes, convey immense quantities of various substances to the sea. The snow, moreover, dissolved by the internal heat, frequently elevates these streams to an extraordinary height, as in 1753, when the Diupaa, from the Sida Jokul, rose 200 feet above its usual level, and covered the whole district with sand, stones, and fragments of ice. Many of the fiords are by these means sensibly diminishing in depth, so that the harbours on their extremities are no longer accessible from the sea ; an effect which is no doubt partly owing to the rise of the land, of which we have many decided proofs. Thus, on the banks of the Leira and Laxa Fiords in West Iceland, more than a mile from the shore, are large deposites, ten feet thick, of blue loam mixed with sand, and containing, at a depth of seven feet from the surface, a bed of shells, of which the most numerous are the Pecten auritus, and a species of Venus. A raised beach is seen in Sneefield Syssel, half a mile from the sea, with houses and fields between, and the channels separating many of the islands are shallower than formerly. Similar changes are visible in the West fiords, where the water has left beautiful alluvial plains, and seems to have retreated about a mile. In Patrix Fiord fishes, said to be the *Clupea sprattus*, and *Salmo Arcticus*, are found embedded in an indurated blue mud or marl, and the process is considered still going on. Near Husevik, in a small hill about 150 feet high, many shells, some of them partially crystallized, occur. Ten or twelve species are enumerated, amongst others cardiæ, pectines, tellinæ, neritæ, of unusual size, and several spiral univalves, one of which is never found in any other part of the island. Most of the shells contain a black clayey sandstone, but some are empty, and covered on the inside

with small white six-sided crystals. Others are filled partly with sandstone, partly with crystals of considerable size; and others are quite full of brown or yellowish-red cubical crystals. These crystallized shells are only found in one part of the hill, those in the remainder retaining their usual character, so that they are observed here in various stages of progress towards fossilization. The elevation of these beds is probably due to the earthquakes which so often shake the foundations of the island, and extend even to the opposite coast of Greenland. It is remarkable that in this latter country the land, at least in the south, seems to be sinking, though the fossil fishes and shells discovered in the alluvial deposites on the coast seem to prove that farther north it has had an opposite motion at no very distant date.*

Povelsen and Menge state, that blocks of granite are not unfrequently found on the most elevated spots in Iceland; and Brongniart considers this fact, if well ascertained, as forming one of the most powerful arguments in favour of the singular theory of De Luc, who conceived the numerous boulders of this and other rocks scattered over various countries, as having been ejected from the interior of the earth by the explosion of expansible fluids compressed by the subsidence of the strata. It is, however, most probable that these masses are some variety of the trap, and even, if they were granite, their presence would be more easily accounted for by other means, especially as we have seen reason to conclude that the former rocks were originally formed at the bottom of the ocean. The teeth and skull of an elephant are also reported to have been found in

* Olafsen, th. i. pp. 67, 82, 150, 192, 326, &c.; th. ii. p. 25, &c. Henderson, vol. ii. p. 113. Gliemann, p. 86. Lyell's Geology (Ed. 1837), vol. ii. pp. 58, 302, 340. That the earthquakes raise large portions of the coast is seen from the effects of those in Myrdals in 1755, when a tract more than two miles wide, and extending fourteen miles into the sea, was raised in three ridges from 120 to 240 feet high. The natives also say that the Solheima rose and fell several times during the same eruption, and at its close was nearly twice its former height. Indeed, the whole southern coast seems rising, the sea having at the Skeidrrau-sands retired some miles Danish (each 4½ English). Ol. th. ii. pp. 27, 86.

this country, probably in some of those recent formations lately described. A solitary fact of this nature is of little importance, as the teeth might be brought to the island, either by some pilgrim returning from the east, or be floated thither amidst the drift-ice and wood that every year arrive there from the north of Asia, where such remains are very common at the mouths of all the great rivers. The figure of this animal, said to be carved on many Runic monuments, rather proves the Asiatic origin of the people, than that the elephant ever co-existed with men in Northern Europe.*

The vast masses of ice covering the summits of the mountains, and descending their sides till checked by the increased temperature of the lower regions, forces on our notice some very curious considerations regarding the changes that might be produced on the climate of the island, even by a small elevation of the land. A rise of 150 feet, which we have seen to have taken place in at least one of the cases mentioned above, would bring many hills, now free, within the limit of perpetual snow. It would also increase the size of the glaciers at present existing, to an extent proportional to the slope of the ground on which they are situated. But the augmentation of these natural reservoirs of cold would lower the mean temperature of the island, and this would again, in its turn, add to their extent. By this reiterated influence, the climate might be much deteriorated, and many plants and animals destroyed. The speculation, however interesting, cannot be pursued, though by means of it we might perhaps account for the observed enlargement of the jökuls both in Iceland and Greenland.

The intensity of heat which these different formations prove to have existed at some former time in the rocks of this island, would lead us to expect many rare and beautiful minerals, which, however, is by no means the case. In the under division of the trap, bronzite is very common, mixed as a constituent part throughout the whole stone. On the other hand, olvine, hornblende,

* Brongniart, Tableau des Terrains (Paris 1829), p. 83. Cuvier sur les Elephans fossiles. Annales du Museum, tom. viii. pp. 43, 44.

and mica are entirely wanting, and iron pyrites is only rarely seen in minute grains scattered through the mass. Opal in small stars is found in the felspathous rocks of the upper division; and in the amygdaloidal cavities of the under division, there are many very beautiful minerals of the quartz and zeolite families. These are generally widely separated from each other, and only on rare occasions found in the same cavities where the quartz fills the outside, accompanied with a few zeolite crystals in the interior. These substances are also most frequent in the under portion of the traps, though vesicular cavities are far from uncommon in the upper division, and thus seem in some degree connected with the presence of the augite and Labrador felspar.

Calcedony, quartz, and agate are generally observed in large irregular holes or fissures in a dark brown ferruginous wacke. The first of these seems to have been in a gelatinous state when introduced; and, when most fluid, to have spread itself in layers over the bottom of the cavity. Many are filled with alternate lines of calcedony and cacholong, the former always becoming thinner as it approaches the top; the uppermost layer being of the latter substance, which seems to be only the lighter portion of the former. At other times the calcedony has run down the walls of the cavity, or descended in stalactitic drops from its roof. These are either long and thin like grapes, or form an uneven plain covered with small spherical elevations. In these cases cacholong is altogether wanting, and the inside of the calcedony is usually covered with small needle-like crystals of amethyst, which is never found between two layers.

These quartz minerals only occur in the larger cavities, the smaller being filled with zeolite, particularly with small rhombohedrons of chabasite. This mineral is remarkably abundant in the trap of Iceland, especially in the vesicular cavities of the augitic rocks. It also occurs on the walls of fissures, and whole strata seem as if penetrated by it; yet the pieces are seldom larger than a pea. Next in abundance is the mesotype, sometimes on the sides of the hollows in the fresh dolerite, but oftener and

in greater beauty, in a kind of soft crumbling wacke, from which, with a little care, perfectly crystallized needles some inches long, and all radiating from one point, may be separated. This clay, mostly coloured by green earth, is the principal bed of the finest zeolites; stilbite, epistilbite, and heulandite are found there, but less frequently in cavities than in masses the size of a man's head, covered with the soft clay. Sometimes this last substance appears as if sown with remarkably beautiful crystals of heulandite, every surface of which possesses equal polish and splendour, so that it is impossible to point out the one which attached it to the rock. They are observed in greatest profusion on the eastern coast, near the Beru Fiord.

Analcime is rare, and only found in the cavities of the black dolerite. It has the form of the leucite, and is about the size of a pin-head. Apophylite is still more rare, though some beautiful drusy cavities lined with it occur in the fine-grained dolerites at the Beru Fiord.

The far-famed double refracting Iceland spar is not, as is often supposed, discovered in the vesicles of the trap rocks, in which calcareous spar is a great rarity, and never in pieces larger than a pea. It only occurs in one place, namely, a fissure on the northern bank of the Röde Fiord about a thousand feet above the sea. A small brook rushing down the rock brings with it numerous fragments, which lie scattered at the bottom. Following its course, with some difficulty one at last arrives at the spot where the stream has wrought great devastation on that beautiful mineral. It is a cleft in a fine-grained augitic greenstone, two and a half to three feet wide and twenty to twenty-five long, completely filled with the pure calc spar, and thinning out on both sides. No attempt has been made to examine the depth of the vein. The water, flowing along its whole length, insinuates itself into the finest fissure, where, when frost arises, it cracks, and destroys the spar, so that now it is almost impossible to obtain a transparent piece of any size, and that only where it has been protected from the rivulet.

is a hill about four miles long and one broad, covered with knobs and cones of a red, yellow, white, and blue colour, in which sulphur is found, though the natives have now ceased to work it. In these it occurs in two layers covered with a red clay, the upper being very fine, while the lower is only sulphur-sand. In some places it is dry, white, and dusty, in others it is converted into a white stone. The principal of the living mines, or those in which the production of sulphur is still going on, are at Bäärfells, where the mineral is situated under a bed of white clay striped with red or blue, the last being always nearest it. This is one to two inches thick, the upper part being of a bright citron yellow, the under mixed with pale-coloured clay. Below, beds of red, yellow, white, and blue clay, the last mixed with iron pyrites, succeed, all of them very hot. The rocks here are similar to those at Krisuvik, only gypsum is more sparingly distributed.

About twenty-eight miles south-east from Husavik are the Krabla namar, and further west, near the Myvatn, the Hlidar or Reykialids namar. There are twelve boiling mud springs in the neighbourhood, and the layer of sulphur, which is six inches thick, is the largest in Iceland. Twenty-four miles south from the last are the Fremre namar, on the side of a high rock, probably part of an old crater. The soil is the same with that at Krisuvik, and exhales much steam, which sometimes deposites limestone in the cracks. The mines are of various sizes, the largest being four hundred feet long by one hundred broad, but all of them deposite great quantities of sulphur.*

The Geology of the Faroe Islands presents almost an exact counterpart to that of the trap districts of Iceland. The main distinction between them is founded in this peculiarity, that whilst the igneous agents which produced the earliest rocks of the former island, seem to have continued in uninterrupted activity till the present

* Olafsen, th. ii. pp. 56-58, 154. Henderson, vol. i. p. 165-170. Hooker, vol. i. p. 238-125. Mackenzie, pp. 113, 115. Gliemann, p. 110-113.

day, in the latter they have apparently ceased to operate from the period when the land rose above the ocean.

The Faroe Islands occupy somewhat of a triangular space in the Northern Ocean, the broadest part being turned to the north. The principal direction of the land is from south-east to north-west, as is seen in the shape of the islands and the position of the fiords; so that Myggenæs may be supposed to form a continuation of Suderoe, an opinion confirmed by the similar strata found in both of them. This consideration, supported by some other facts to be afterwards noticed, makes it probable that a portion of the group towards the south, corresponding to the north-eastern islands, has been destroyed since the period of their formation. There are only two principal rocks found, namely, various kinds of trap in beds, averaging 100 feet in thickness, and alternating strata, one or two feet thick, of a mineral very similar to claystone, named tuffa by Allan and Mackenzie. This is coloured red, yellow, brown, or green, by the oxide, oxihydrate, or oxidulate of iron, and contains on some occasions small rounded fragments of basalt or greenstone. As in Iceland, the trap forms two divisions; its most common varieties being in the under part of the series greenstone and amygdaloid, and in the upper porphyry, which is sometimes slaty. All the kinds are more or less deeply tinged by the dark green ferruginous mineral usually blended with the mass. Small crystals, probably of augite, are found in the opaliferous porphyry near Eide, on Oesteroe. Felspar, either the common or glassy varieties, is very distinctly seen, though the latter is confined to the porphyritic rocks of the upper division. At the junction of the two series in Suderoe, which at Qualboe is nearly at the level of the sea, there occur two beds of pitchcoal, only separated by a layer of fire-clay. In this island they occupy a space of about twenty-two square miles, and it is probable that the coal found under similar circumstances on Myggenæs was formerly united with it. This substance has a glassy appearance, and is crossed in the direction of the stratification with delicate parallel lines. It is accompanied with slate-clay, hardened

clay, wacke, and spacrosiderite, with crystals of sparry iron (spatheisen) and quartz. Indistinct remains of reed-like plants and fossil-wood, said to belong to the coniferæ, also occur, though rarely. Landt states that some of the coal is superior to that from Ayrshire, and Trevelyan says that it resembles the kind used in Edinburgh; but the specimens procured by Allan burnt with difficulty, and had the ligneous texture and bad smell of that which is found in the basaltic rocks of Antrim.

The dolerite or trap, except where it approaches to basalt or conglomerate, forms tabular masses, with surfaces parallel on the great scale to the principal divisions; a kind of structure best seen from some distance, especially on the precipitous coasts. According to Dr Forchhammar, the beds dip towards a point in the interior of the group, at an angle varying from four or five degrees in the centre, to ten on the outskirts, as in the south of Suderoe and Myggenæs. This confirms the opinion as to the destruction of part of the system on the south-east, where partial alterations may be seen in the direction of the strata.*

The upper surface of all the trap strata retain the plainest marks of the mass having formerly been in a fluid state. Many of them are slaggy, or resemble coils of rope or crumpled cloth, similar to some of the Icelandic lavas, and are covered with a thin broken layer of red oxide of iron. Similar appearances are more rarely found in the interior of the beds where any separation has taken place, and it there seems to depend on a particular kind of conglomerate breaking through and disturbing the body of the rock.

Numerous veins of basaltic or porphyritic dolerite rise through the strata, but without producing any change in their appearance or position, and can sometimes be traced from one island to another. Like those in Ice-

* In Suderoe, the dip is N.N.E.; in Myggenæs E.; in North Oesteroe S.S.E.; in North Stromoe S.S.E; in the middle of Oesteroe E.N.E.; in the south of Stromoe E.S.E; and on Nalsoe S.S.E. to S. No observations were made on the north-western islands, as, from the unevenness of the strata, it is only practicable under particular circumstances.

land, they are in many instances divided into columns, perpendicular to the sides, which here also have frequently a vitreous coating; and being, for this reason, easily destroyed by the sea and moisture, give rise to deep perpendicular gullies. On the shore near Saxen there is a singular vein; at first it is perpendicular, but soon turning to the left in the form of a hook, it vanishes. Within the curve rises a second, resembling the letter S, and soon also ends. It is succeeded by another of similar form and duration; but a fourth, setting off from within the last curve, continues perpendicular to the water. As all the sounds between the islands run nearly in the same direction, Mackenzie thinks that they may have been originally huge veins, destroyed by various aqueous agents, reducing the once solid group to its present fragmentary condition.

Still more singular are the phenomena of the conglomerate to which we formerly alluded, piercing through, disturbing, and altering the superior beds. These effects are most distinctly seen on the eastern coast of Sudcroe, Nalsoe, and Oesteroe, exactly where a part of the group is supposed to be wanting. In Qualboe Fiord the beds of amygdaloid are bent into waves, broken in pieces, or separated by intruding wedge-shaped masses of basalt. Large angular fragments of a red amygdaloid are enclosed in another of a grayish colour, and the corners of the chabasite are rounded as if melted. The regularity of the coal strata on the opposite coast has altogether vanished; they are divided by columnar basalt, compressed to a few inches, and in places where, according to the dip, they should already be below the level of the sea, are, along with the slate-clay, raised up in pieces nearly a foot in diameter, and involved in the conglomerate. In Vaagoe a slaggy mass affects the black porphyritic dolerite in a similar manner, colouring it red on both sides, and as if welding it to the alternate layers of tuffa.

On Oesteroe, in a place where the porphyry is much disturbed by the conglomerate, a small mass, similar to a stream of lava, flows from the point of contact between the amygdaloid and the irregular basalt. The surface is

horizontal, and it increases much in size during its progress down the trap strata, but is soon interrupted by the sea. It consists of fragments of red porphyry in a basis of the same colour, the latter bearing evident marks of having been melted.

On the western side of Stromoe, a very curious bed of greenstone occurs. It is composed of titan iron and felspar, has a columnar structure, and an average thickness of one hundred feet. It lies sometimes conformable to the regular trap, at others cutting it at a greater or smaller angle, yet, without producing any change on the nature of the stone or the relative position of the strata. It has been traced in an undulating bed from Norderdahl, where it involves a conical hill of horizontal trap, over Skiellingsfeld to the north of Leinum. On the Vaagoe Fiord, it is found at the level of the sea, whilst on the Leinumfield and other places it attains an elevation of 1800 feet, large surfaces being as it were paved with its pillars, between which no plant can take root.

Such are the ancient formations found in these islands, where they are succeeded by none of a more recent character. The quantity of debris borne down by the rivulets is too small, compared with the wide and deep ocean that surrounds them, to form any alluvial deposites at their mouth, while the form of the land prevents any accumulation on its surface. A bank of sand and mud has, however, been traced upwards of twenty miles to the eastward of these islands, usually at the depth of from forty to a hundred fathoms, adding another link to the chain of evidence in support of the former existence of land in that quarter. This bed is replete with broken and entire shells and echini; and fish-bones occur in one part (long. 6° 30′, lat. 61° 50′), called the bone-bed, so abundantly, that the lead cannot be drawn up without some vertebræ being attached.*

The minerals which may be obtained in several of these islands are well known to collectors for their extraordinary size and beauty. Olivin in granular masses, so

* Lyell's Geology (5th edition), vol. iii. p. 272.

common in many trap rocks, is entirely wanting in Faroe, though peridote, in porphyritic crystals, occurs on Tindholm. Chlorophæite is found at Qualboe, in fragments originally transparent, but becoming completely black on exposure to the air, whilst the noble, fire, and pearl opal is disseminated in small nodules through a felspar porphyry near the Leinumvatn. Copper, native as well as oxidized, is found in many places both in trap and tuffa, and some of it was taken to Kongsberg in Norway, but was too poor to pay the expense. Forchhammar was shown gold, probably procured from some of the rocks there, but never could discover any trace of it in them, though Trevelyan says that it occurs along with the native copper, and also very rarely alone. The chabasite is the most important of the zeolitic family, characterizing the amygdaloids of the upper porphyritic group, whilst heulandite prevails in the under part. Stilbite, mesotype, and apophylite, along with calcareous spar, are almost constantly found filling the vesicular cavities of the trap rocks. According to Forchhammar, the formation of zeolite by the action of the atmospherical water on the dolerite seems still in progress. Conglomerates are found in fissures where the zeolite acts the part of calc-spar; and as the springs deposite a similar sinter, in the summer, when the small brooks are dry, their whole bed is white. He has even found in deep cavities, where there was little evaporation, masses half gelatinous half crystallized, which put the continuous formation of zeolite beyond doubt. Magnificent specimens of calcedony, sometimes in round irregular masses, at others resembling bunches of grapes, are also very common, and have probably been formed in a similar manner.*

* The geological features of the Faroe Islands were first described by our distinguished countrymen Sir George Mackenzie, and Thomas Allan, Esq., so well known for his mineralogical acquirements (Edin. Phil. Trans. vol. vii. (1815) pp. 213-227, 229-267); and afterwards by Trevelyan (Edin. Phil. Trans. vol. ix. p. 461-464); and by Dr Forchhammar, the celebrated Danish geologist (Karsten's Archiv. für Mineralogie, vol. ii. (1830) p. 197-208.)

CHAPTER XI.

Botany of Iceland, Greenland, and Faroe.

Causes of scanty Vegetation—General View—Comparative Table of Natural Families—Faroe Islands—No Woods—Plants found there, but wanting to the others—Plants used for Food—Height of Vegetation on the Mountains—Greenland—Deficiency of Vegetation—Dwarfed Appearance of the Trees—Iceland—Comparison with Scotland and Lapland—Cryptogamous Vegetation—Trees and Shrubs—Distribution of Vegetation—Plants in volcanic Soils—Near the hot Springs—Useful Plants—The Sand-corn—Birch—Willows—European Character of Vegetation—Iceland Moss.

The varied forms of vegetable life that clothe the surface of the globe are arranged in certain groups, determined by the peculiar character of each plant. All are not equally adapted to every land, and the climate which fosters one species or genus to a vigorous maturity, blights and destroys others, which, again, find a favourite residence in latitudes hostile to the existence of the former. Fertility of soil, elevation of temperature, and abundant humidity are the great requisites to a luxuriant vegetation, and are especially necessary to the more beautiful and useful tribes. But all these conditions, except perhaps the last, which alone may prove rather injurious than beneficial, are wanting to the countries now under consideration. Their soil is thin and barren, their climate cold and stormy; whilst, instead of gentle and refreshing showers, the atmosphere deposites its superabundant moisture in snow or ice, withering the tender leaf and crushing the opening flower. We need not, therefore, be surprised at the limited vegetation of those islands, but rather that any plants should be enabled to withstand so many adverse circumstances, and have found their way thither across the intervening seas.

Iceland, whether from the greater variety of soil, or from having been more carefully examined, contains the most numerous assortment of plants, amounting in all to 870 species, of which 472 are phenogamous, and belong to 161 genera. Greenland possesses little more than half that number, or 450, of which a far smaller proportion, namely 195 species and 84 genera, are phenogamous. In Faroe, 583 are described, of which 270 species and 146 genera are flowering plants. Iceland has thus on an average nearly three species to one genus, Greenland rather more, and Faroe rather less than two; whilst in Scotland the proportion is again about three to each genus. Fuller details will be found in the following comparative tables of the number of species in each natural family discovered in those regions, which it is hoped will not be without interest to the scientific botanist. To this it will only be necessary to subjoin a few remarks on the peculiarities of each district, and an account of some of the more useful plants.*

GENERAL VIEW OF VEGETATION.

Natural Families of Plants.	Scotland.	Faroe.	Iceland.	Greenland
	Species.	Species.	Species.	Species.
ACOTYLEDONES.				
Fungi	974	7	15	9
Lichenes	260	50	60	59
Algæ	465	127	87	71
Characeæ	4	1	2	..
Hepaticæ	73	22	54	13
Musci	264	85	152	75
Filices	48	21	28	28
Total Acotyledones	2088	313	398	255
.. Monocotyledones	276	83	141	47
.. Dicotyledones	879	187	331	148
.. Phenogames	1155	270	472	195
.. Vegetation	3243	583	870	450

* The first column under each country contains the whole number of species, the second the proportion of these to the total phenogamous vegetation: thus, the gramineæ in Faroe are 27, or 1-10th of the flowering plants. The species of Faroe are taken from Trevelyan, those of Iceland and Greenland principally from the catalogues of Gliemann and Giesecke. For the sake of comparison we have added the corresponding Scottish families. It is hoped that few errors of consequence will be found in these numbers.

VIEW OF PHENOGAMOUS VEGETATION.

Natural Families of Plants.	Scotland.		Faroe.		Iceland.		Greenland.	
	Species	Prop.	Species	Prop.	Species	Prop.	Species	Prop.
MONOCOTYLEDONES.								
Gramineæ	96	12	27	10	53	9	15	13
Cyperaceæ	80	14	24	11	42	11	11	18
Junceæ	27	43	14	19	13	36	8	24
Melanthaceæ	2	577	..	..	2	236	2	97
Asparageæ	6	192	..	..	3	157	..	..
Asphodeleæ	10	115	..	..	1	472	..	..
Liliaceæ	1	1155	1	270	..	..	..	..
Irideæ	1	1155	1	270	..	..	..	..
Orchideæ	17	68	6	45	14	34	2	97
Typhaceæ	5	231	1	270	1	472	..	..
Juncagineæ	3	385	2	135	2	236	..	..
Alismaceæ	21	55	10	27	10	47	9	22
Pistiaceæ	4	289	1	270	..	..	..	..
DICOTYLEDONES.								
Ranunculaceæ	28	41	10	27	12	40	10	19
Berberideæ	2	577	..	..	1	472	..	..
Papaveraceæ	7	165	1	270	2	236	2	97
Cruciferæ	57	20	16	17	26	18	12	16
Violaceæ	7	165	3	90	6	78	2	97
Droseraceæ	3	385	..	..	3	157	..	..
Polygaleæ	1	1155	1	270	1	472	..	..
Caryophyllaceæ	47	25	17	16	29	16	15	13
Lineæ	3	385	1	270	1	472	..	..
Hypericineæ	11	105	3	90	1	472	..	..
Geraniaceæ	13	88	1	270	4	118	..	..
Oxalideæ	2	577	1	270	..	..	1	195
Leguminosæ	45	26	4	67	8	59	2	97
Rosaceæ	63	18	11	24	24	20	13	15
Onagrariæ	11	105	8	33	9	52	5	39
Halorageæ	4	289	3	90	6	78	1	195
Ceratophylleæ	1	1155	1	270	1	472	..	..
Portulaceæ	1	1155	1	270	2	236	..	..
Crassulaceæ	10	115	2	135	8	59	2	97
Saxifrageæ	20	58	9	30	21	22	13	15
Umbelliferæ	46	25	3	90	7	67	1	195
Caprifoliaceæ	10	115	1	270	1	472	1	195
Rubiaceæ	17	68	3	90	9	52	..	..
Valerianeæ	5	231	..	..	1	472	..	..
Dipsaceæ	6	192	1	270	3	157	..	..
Compositæ	105	11	20	13	28	17	13	15
Campanulaceæ	9	128	1	270	2	236	2	97
Ericineæ	18	64	6	45	13	36	11	18
Monotropeæ	1	1155	2	135	3	157	4	49
Boragineæ	22	52	4	67	5	94	1	195
Gentianeæ	7	165	2	135	14	34	2	97
Scrophularinæ	36	32	11	24	17	28	5	39
Labiatæ	41	28	6	45	6	78	3	65
Lentibulariæ	5	231	1	270	3	157	1	195
Primulaceæ	16	72	2	135	3	157	1	195
Plumbagineæ	4	289	1	270	2	286	1	195
Plantagineæ	5	231	6	45	5	94	1	195
Chenopodiæ	19	61	4	67	4	118	..	..
Polygoneæ	23	50	10	27	14	34	7	28
Empetreæ	1	1155	1	270	1	472	1	195
Urticeæ	4	289	1	270	2	236	..	..
Amentaceæ	70	17	6	45	20	24	14	14
Coniferæ	4	289	1	270	1	472	1	195

Though, from their remains found in the mosses, birch-trees are known to have formerly grown in Faroe, they do not exist at present on account of the violent winds. In this respect those islands may therefore seem inferior to the more northern countries, but the milder climate they enjoy is proved by the occurrence of several species unable to endure the rigours of winter in Iceland or Greenland. Among the indigenous plants peculiar to this group we may mention the beautiful yellow iris and the vernal squil (*Scilla verna*), with six or eight blue flowers, both confined to the southern parts of Suderoe, and the former only found in one spot. More common are the rose-coloured creeping pimpernel (*Anagallis tenella*), the fine leaved heath (*Erica cinerea*) with bluish crimson bells, and the asphodel (*Narthecium ossifragum*), —the latter, notwithstanding its fabled power of softening the bones of men and animals, forming a large proportion of the winter's hay, and used for dyeing yellow. To the north of Faroe we also lose the red or white lychnis (*L. dioica*), frequent on the sea-beaten cliffs, the common rose, which even here seldom flowers, several species of ranunculus, the water-cress (*Nasturtium officinale*), together with the imperforate and upright St John's wort (*Hypericum dubium* and *pulchrum*). Here we also find for the last time the colt's foot (*Tussilago Farfara*), the tansy (*Tanacetum vulgare*), probably not indigenous though growing wild, and the common daisy (*Bellis perennis*), which in mild winters may always be seen in flower. With these some others less interesting also disappear, but those mentioned may suffice as a specimen of the loss sustained by the more hyperborean floras.

Few of the native plants are used by the inhabitants of these islands either for food or other economical purposes. The berries of the *Cornus Suecica*, the juniper, and some other small shrubs, are eaten, and also the roots of the wild tansy (*Potentilla anserina*), the tubers of *Equisetum arvense*, and sometimes the salt astringent leaves of the sea-plantain (*P. maritima*). If to these we add the scurvy-grass, five or six species of fuci, and the Iceland moss, whose medicinal effects are

well known, we have enumerated almost all the indigenous plants considered edible by the natives, who in this respect seem by no means difficult to please. Healing properties are also ascribed to a few, and others are employed for dyeing the home-manufactures. Thus they procure black from the wood-crane's bill (*Geranium sylvaticum*), green from the *Potentilla anserina*, and red, brown, yellow, or orange, from various kinds of lichens.*

Greenland, though much of it is situated farther south than Faroe or Iceland, and even in the same latitude with the Shetland Islands, possesses a more truly arctic flora. It contains many plants unknown to more genial climes; but, on the other hand, several which elsewhere rise into trees or shrubs, there creep along the ground, or seek shelter beneath some precipice from the snow and storm. It is only in the vicinity of the houses, where the soil has been enriched by the refuse of the seals, that vegetation becomes at all luxuriant. In the valleys, mosses and marsh plants replace all others, whilst the dark rocks are clothed with numerous sombre-coloured lichens, which grow with great rapidity beneath the snow. It is exclusively on the sides of the firths that pasture-land occurs; and the gramineous plants form only a thirteenth part of the vegetation instead of a ninth as in Iceland, in which nearly four times as many species occur. In the extreme south, nature, though still bleak and steril, wears a more smiling appearance. In sheltered spots there is sometimes good pasturage; the service tree, which grows wild, matures its fruit; and it is thought that the potato might be cultivated with success. But farther north, even in the warm firds, the birches and alders that overhang the rivulets are seldom the height of a man, and their crooked stems are only three or four inches thick. The former in general are even more dwarfed, whilst the willows and juniper hardly rise from

* Landt enumerates 308 plants, of which 204 are phenogamous, as growing in Faroe, and a more complete list was published by Mr Trevelyan in the Edinburgh Philosophical Journal (vol. xviii. 1835).

the ground. These, with the black crakeberry, wortleberry, and the angelica, form the usual vegetation, and supply the natives with a favourite food in summer. The crowberry, a low heath-like plant with black juicy berries of an agreeable taste, is also abundant, together with the beautiful creeping azalea, distinguished by a profusion of small red flowers.*

Iceland, as appears from the tables inserted above, contains a far greater variety of vegetable productions. This is in some degree owing to its wider diversity of soil, from the deep marsh to the dry sandy waste or scorified lava rock, each of which possesses characteristic plants. Though the mean temperature of no part of the island is high, yet there is a considerable difference between the climate of the sheltered valleys of the coast and that of the mountains, where ice and snow hold undisputed sway. Hence though the number of species may be considered as small compared to that found in other countries, it is less so than is usually supposed. Lapland, which forms the fairest object of comparison, notwithstanding its more favourable position for receiving accessions of plants from warmer countries, only contains about twenty more; the number in it being 495, whilst 472 phenogames have been described in Iceland. Compared with Scotland, from which it does not differ very much in extent, the deficiency is far more remarkable; the latter possessing 1155 plants, or nearly two and a half times as many as the former. Its vegetation also differs considerably from that of Britain, 118 of its plants, or one in four, being unknown in this island, which is nearly in the same proportion with those of Lapland.

The cryptogamous plants of Iceland bear a much smaller relation to the whole vegetation than the same class in Scotland. The proportion, also, of the orders is strikingly different,—the fungi, which in our country form forty-six per cent. of the whole cryptogamous vege-

* The most complete list of Greenland plants we have seen is that given by Giesecke in Brewster's Encyclopædia. Some notices may also be found in Crantz, Scoresby, and Graah, from whose works we have added a few species to Giesecke's catalogue.

tation, in Iceland are scarcely four per cent. Iceland, however, relatively to North Britain, abounds in lichens in the proportion of six to five, the number per cent. in the former being fifteen, in the latter twelve and a half. In the other orders the proportion is also in favour of Iceland, particularly in regard to the hepaticæ and mosses; the humble growth and imperfect organization of these plants enabling them better to withstand the severities of the polar climates, of which they are thus characteristic forms. The seaweeds or algæ are also numerous, though less so than in Faroe, where they constitute above forty per cent. of the cryptogamous vegetation, whilst in Iceland they are twenty-two, and in Scotland a little more than that number.*

The flora of Iceland contains few shrubs or trees, the whole number which can pretend to this character being only thirty-two. With the exception of some thickets of birch and willow there is nothing even approaching to the character of a wood; for the vast forests of the former that clothed the mountains to the very shore on the first arrival of the Northmen, have almost entirely vanished. Nature herself has in some instances contributed to this devastation, as happened to the wood of Thingvalla, which was destroyed by volcanic fire in the year 1587. The only remnants of these ancient forests, never very magnificent, may be traced in some of the sheltered valleys, where we also find the most luxuriant herbage intermingled with numerous flowers. One of the finest now in existence is at the base of the mountain Skardsheidi, where the

* The first list of Icelandic plants seems to have been that of Müller in Novis Act. Nat. Cur. Tom. iv. p. 203, *et seq.* This was followed by that of Zoega, published in the second volume of Olafsen's Travels, and republished, with the addition of some fifty species, by Hooker and Mackenzie. The fullest list is, however, that of Gliemann (pp. 136 149, 171-183), who has added, chiefly from the contributions of Mörck, a companion of Kotzebue in his circumnavigation of the globe, above a hundred phanerogamous plants and about as many cryptogames. These additions have considerably altered the proportion of British species, which formerly was nearly as six to seven, and now only as three to four, or six to eight.

birches in the centre are eleven or twelve feet high, and five or six inches in diameter. When Hooker passed through it their expanded blossoms diffused an agreeable fragrance rarely known in Iceland, whilst the *Festuca vivipara* and other grasses, with *Silene acaulis* and abundance of the elegant *Polypodium dryopteris*, formed a rich carpet which almost made him forget the desert scenery around.*

We have mentioned that different parts of the island are distinguished by peculiar groups of plants, and we shall now shortly notice some of the principal of these. On the seashore the most common are the *Zostera maritima*, *Cochlearia officinalis* and *danica*, whose leaves, commonly eaten like cabbage, are well known as a remedy for scurvy; the *Pulmonari amaritima* and the lyme-grass (*Elymus arenarius*), here as in other countries valued for binding together the loose sand. Further into the interior we see *Phleum pratense*, several species of the bent grass (*Agrostis*), the butterwort (*Pinguicula vulgaris*), used instead of garlic, *Aira cæspitosa*, many kinds of our common meadow-grass (*Poa*), some sorrels, and the *Statice armeria* or thrift. Along with these grow *Cerastium viscosum* and *vulgatum*, *Potentilla anserina*, whose roots are still eaten, though less commonly than in the middle ages, *Plantago lanceolata*, *Holcus odoratus*, *Ranunculus acris* and *repens*, *Dryas octopetala*, occasionally used for tea. To these may be added *Draba verna*, *Carex acuta*, the dandelion, black crowberry, juniper, many willows, and similar plants intermixed with flowers, such as the rose bay willow-herb (*Epilobium angustifolium*), one of the most beautiful of the Icelandic plants, but almost confined to the western and eastern coasts, the winter-green, violets, primroses, with several others, and in the dry moors, heath, ling, and numerous whortleberries. In the marshes, which are very common in the low grounds, the plants usually met with are the *Eriophorum polystachyon*, *Menyanthes trifoliata*, serving as a guide to horsemen in traversing these dangerous paths, its roots binding the soil into a firm mass,

* Hooker's Travels, vol. i. p. 320. Olafsen's Reise, th. i. p. 89.

whilst the *Comarum palustre* marks the deeper and impassable spots. In the same places also grow the elegant *Parnassia palustris*, *Rhinanthus crista galli*, *Triglochin palustre*, *Carex dioica*, with many others of the same genus, and numerous *Equiseta*, considered as hurtful to cattle, which yet are said to be very fond of them. On the mountains the vegetation is distinguished by *Alchemilla vulgaris* and *alpina*, *Rheum digynum*, *Bartsia alpina*, *Polygonum viviparum*, from whose bulbs the natives form a black but wholesome bread, *Silene acaulis*, *Thalictrum alpinum*, several willows, and, in the intervening valleys, *Gnaphalium alpinum*, whilst the fissures of the rocks are adorned by the beautiful flowers of the *Rhodiola rosea* or mountain rose-root.

The volcanic districts have also some distinguishing plants which flourish there in the greatest luxuriance. In the rocky valleys where no grass grows, the stones are covered with the Iceland moss (*Cetraria Islandica*) spreading over the other lichens. The dry wastes of volcanic sand form the favourite locality of the wild corn or melur (*Elymus arenarius*). Even the naked lava rocks are variegated with numerous lichens and mosses, as the *Parmelia sarmentosa* and *Trichostomum canescens*, the latter being from a foot to a foot and a half long. The *Andromeda hypnoides* often takes root in the fissures, the delicate tint of its flowers finely contrasting with the uniform blackness of the stone. Some time, however, must elapse before vegetation can commence on the smooth and glassy surface of these volcanic rocks; and hence the older lavas are often completely white with a species of bryum, whilst the newer alongside of them are still quite naked. Even in the immediate vicinity of the warm springs many plants occur nourished to an unnatural size by the heat of the soil and the constant moisture. Thus the wild thyme is nowhere found in greater abundance than in the cracks of the rocky basin of the Geyser, which has checked the growth of all other plants by converting the earth into stone. The *Prunella vulgaris* was found growing close to the boiling springs of Oelves, and had attained an unusual

size; and the *Senecio sylvaticus*, never found in any other part of the island, occurred among some rubbish at the Akrahver. At the baths of Laugarnes we observe the *Sisymbrium nasturtium*, *Potentilla anserina*, and *Plantago major*, its leaves being wrinkled by the great heat. The two last are also common near other hot springs, the neighbourhood of which seems to be their favourite locality. In the warm clay near Krisuvig, the *Ranunculus acris*, *Potentilla anserina*, and the *Tormentilla erecta* occur with the leaves of their corolla doubled. A species of chara has also been found flowering and bearing seeds in one of those springs, the temperature of which was so high as to boil an egg in four minutes.

Few of the Icelandic plants are deserving of notice for their utility to the human species. Many of those used for food or other purposes rather prove the poverty of the land, which compels its inhabitants to have recourse to such miserable substitutes, than their own intrinsic excellence; and some formerly much esteemed are now neglected, the extension of commerce having introduced foreign substances, which have entirely superseded them. Thus the *Geranium sylvaticum*, one of the most beautiful plants, found every where adorning the fragments of rock with its large sky-blue flowers, was formerly gathered for dyeing blue, though the art is now lost. This colour was considered as the most appropriate for warriors, and Odin himself is always represented as wearing garments of this hue, probably procured from the same plant, indigo and other exotic dye-stuffs being then unknown.

To the same class we must refer the *Elymus arenarius*, chiefly valued in other countries as binding together, by its long creeping roots, the loose sand on the seashore, but in many parts of Iceland, particularly the eastern coast, its seeds are carefully collected and made into meal. This plant, the melur of the natives, is a kind of grass, with a spike or ear four or five inches long, and generally appears in a sandy soil. The seashore and the tracts of volcanic ashes in the interior, are equally favourable to its growth, though it is principally from the

latter that the seeds used for bread are obtained; and the natives' regard it as a great gift wherewith the wise Creator has blessed those mournful wastes. The harvest is in August, when it becomes white in the ear, but as it is seldom fully ripe, it requires to be dried before grinding. It is cut with a sickle, made up in bundles, and carried home on the backs of horses. It is then separated from the straw and ground in hand-mills, cut out of a block of lava, into fine meal of a grayish colour. It is either baked into bread or eaten boiled with milk, and has a sweetish taste somewhat similar to malt, though more agreeable. It is thought more nourishing than the meal imported from abroad; and the inhabitants of Myrdals, where it grows most abundantly, not only supply themselves with this voluntary bounty of nature, but send it to other parts of the country. It is, however, far from being productive, and the natives consider it a good harvest when forty horse-load yield a tonne or four English bushels of meal.

The willows are remarkably abundant, one or other of the seventeen species being found shooting up almost every where. The most common kinds are the *Salix glauca*, *myrtilloides*, and *lapponum*, the last two, though familiar in Sweden, being unknown in Britain. Next to these is the *Salix reticulata*, and on the rocks the *Salix myrsinites* and *herbacea*. Most of them are low creeping shrubs, and they are principally valued as food for cattle. The ink commonly used in Iceland is prepared from a decoction of this tree mixed with that of the arbutus or bear-berries.

No plants are more abundant than some species of *Carex*, particularly the *Carex acuta*, which, while they form the best pasture in the island, prove also the truly European character of its botany. Though about a third of the thirty-seven species found in this extensive genus are unknown to Britain, yet they have almost all been met with in other parts of the continent, particularly in the cold mountainous regions of Lapland and Norway. It is, however, curious to observe some which appear to have strayed from more southern regions, as the *Carex*

ornithopoda from Italy and Germany, and the *Carex rupestris* from the mountains of Savoy. The same remark applies to the Saxifrages, of which twenty-one species grow in that island; all being European except two, the *Saxifraga Grœnlandica* and *tricuspidata*, which belong to the neighbouring country of Greenland. The Gentians, another family characteristic of the colder regions of the earth, also illustrate this point. Of the twelve species eleven occur in Europe, mostly in the Alps of Switzerland and Scandinavia, whilst only one, the *Gentiana quinquefolia*, is American, being found in Pennsylvania. Few of the other plants deserve particular notice, though we may mention the *Koenigia Islandica*, which was first discovered in this island by the botanist after whom it is named, and since that period in Greenland and Faroe. The *Angelica Archangelica* is accounted a great delicacy by the natives of this and the neighbouring countries, who use both the stalk and root. It is found of the greatest size and perfection on those mountains near the coast where the sea-fowl build their nests. In Greenland it is called quanneck, a name derived from the old Norwegian language, and it is considered better flavoured in those northern regions than in warmer countries. We formerly mentioned the gathering of the fiallagrass or Iceland moss (*Cetraria Islandica*), as a favourite employment of the females during the summer months. Of this vegetable there are three or four varieties, but the best, which is of a bright-brown colour, grows on the rocks and stones in the most barren parts of the land, and requires three years to attain its full size. It is used as their daily food by many of the natives. When its bitter purgative quality has been extracted by boiling it in water, it is dried, reduced to powder, and either made into bread or mixed with milk. Its medicinal effects in coughs, consumptions, and other complaints, have been long known to the Icelanders, and have led to its introduction into foreign countries. The poor natives prefer this plant to all other food, and gratefully acknowledge "that a bountiful Providence sends them bread out of the very stones."

CHAPTER XII.

Zoology of Iceland, Greenland, and Faroe.

General View of animated Nature in these Climates—MAMMALIA —Domestic Animals—Rein-deer—Fox—Polar Bear—Introduction on the Ice—White Hare—Greenland Mouse—Iceland Mice ferry Rivers—Seal—Morse—Cetaceous Mammalia—Lamantin — Dolphins — Ca'ing Whale — Narwal — Cachelot — Common Whale—Gradual Extinction—ORNITHOLOGY—Eagle — Jerfalcon — Owls — Crows — Raven — Grouse — Finches — Plover — Lapwing — Heron — Oyster-catcher—Singing Swan —Ducks—Eider Duck—Societies of Birds—Puffins—Auk— Cormorant—Solan Goose—Gulls—Skuas—Petrels—No Reptiles in Iceland or Faroe—ICHTHYOLOGY — Salmon — Trout — Capelin— Eels — Herring — Cod — Remora — Flat Fish — Sharks—Molluscous Animals—Crustaceæ—Insects—Radiated Animals.

ALL those circumstances which regulate the distribution of animal life on the surface of the globe combine to limit both its variety and abundance in the countries now under consideration. Their insular situation puts nearly an entire stop to the migration of most tribes of mammalia, and of those land-birds endowed with the least powerful organs of flight, whilst the ice-bound earth and inclement skies refuse sufficient nourishment to promote the increase of such as are native to them. As the more extensive of these lands, in their central regions at least, are doomed to almost perpetual desolation, they only prove congenial abodes to such animals as live either wholly or in part amidst the waters of the ocean. There they are not only supplied with abundant food, but by the nearly uniform temperature of this

immense fluid mass, are protected from the frequent vicissitudes that occur on land. Hence fishes, water-fowl, and the amphibious mammalia, together with those rapacious birds, fit emblems of the old vikingr, whose soaring flight and predatory habits render them the denizens of every clime, constitute the great bulk of the vertebrated animals. Thus, whilst there are probably no indigenous land quadrupeds in Faroe at all, in Iceland there are only three or four,—two foxes, the polar bear, and perhaps a species of mouse,—all of which, it is likely, were floated thither on the Greenland ice. Even in this latter country, though frequently united in winter to the American continent, the rein-deer, the white hare, and another variety of mouse, form the only additions to the former scanty list. On the other hand, the seals and cetaceæ are numerous and prolific, and probably, by the food and clothing they supply, alone render many portions of those dreary regions habitable to the human race.

The consideration of the other classes of animals would confirm these views. Thus, the feathered tribes, notwithstanding their greater powers of locomotion, manifest the same subjection to the all-pervading influence of climate. In Iceland more than a half of the species enumerated belong to the Natatorial orders, and nearly one-half of the remainder to the Grallatorial; so that three-fourths of the species, and a far larger proportion of individuals, are more or less aquatic in their habits, whilst many of the residue are little more than occasional stragglers, which can scarcely be reckoned among the natives of the land. In the two other countries nearly the same relations exist; so that in all of them the species beneficial to man chiefly occur on the seashore. Though the fishes, from their place of residence, are less affected by atmospherical changes, yet, when we exclude the Salmonidæ, which appear to delight in the gelid rivers of the north, almost the whole inhabit the ocean.

Only about a dozen of true land mammalia are found in those regions, and two-thirds of these have been intro-

duced by man. Among the latter are the dog and cat; the former of which is used in Greenland as a beast of burden and for food, but in the two other countries only valued for his assistance in taking charge of the flocks. Horses, goats, cows, the last generally without horns, and sheep often with four or five, have also been conveyed thither from foreign countries. This is also the case with the rein-deer, which, though indigenous in Greenland and Spitzbergen, was introduced into Iceland so late as 1770, when three of them were brought from Norway and liberated in the south of the island; and since that time they have so much increased, that herds of thirty, forty, or even a hundred, are not unfrequently seen in the mountainous districts. The natives make no use of them either domesticated or for the chase, but complain much of the injury they do in consuming the moss. As they seem to thrive, it is probable that they might, if tamed, prove a valuable addition to the comforts of the inhabitants.

Two species of the fox occur in Iceland, the white or arctic fox (*Canis lagopus*) and the blue fox (*Canis fuliginosus*).[a] The first of these, sometimes named the isatis, is seldom found at a great distance from the polar circle, near which appears to be its favourite residence. It is of a white colour both summer and winter, and is by some writers regarded as only a variety of the other kind,[c] which it much resembles in its habits. This is more numerous, and very destructive to the flocks, and is larger and handsomer than the former. In Greenland it frequents the seashore, living among fragments of rocks or holes in the cliffs, and feeding on small birds, eggs, shell-fish, and even on grass or seaweed. The fur, which is very thick, soft, and silky, is in summer spotted with gray, blue, or white, and is highly prized in China. Olafsen says that the common brown fox (*Canis vulpes*) is also found in Iceland, and that it sometimes attacks even the old sheep, clinging to them till they fall down through exhaustion; but both these statements require confirmation.[d] These animals have probably been transported to this island from Green-

land on the floating ice,—a mode of conveyance which they are reported sometimes to employ in passing from one island to another; and the last-mentioned traveller, on one occasion, saw no fewer than four on one piece sailing away on some such voyage of discovery. When they miss the islands they drift out into the sea and are lost, to the great joy of the inhabitants, as when they effect a landing they either destroy or chase away all the eider ducks and other birds.

The most formidable animal found in these lands is the large white or polar bear (*Ursus maritimus* or *arcticus*), though it seems only an occasional visitant of the inhabited districts. It migrates to West Greenland with the floating ice in the beginning of winter, and leaves it again about the end of June. In Iceland it has been known from the first period of the colonization, being very often brought thither on the floes. They are seldom numerous, twelve or thirteen being the greatest number mentioned as arriving in any one season, and, as they commit great havoc among the cattle, the inhabitants soon destroy them.

The white hare is only found in Greenland, where it frequents the snowy mountains, retaining this colour all the year round. The other animals of this order are rats and mice, the former with nothing peculiar either in appearance or habits. Of the latter the species found by Scoresby (*Mus Grœnlandicus*) seems peculiar to the eastern coast, and approaches in character to the lemmings. In Iceland, Olafsen mentions a white species, either a variety of the common house-mouse or of the field-mouse (*M. sylvaticus*), found in considerable numbers in the woods, where it collects nuts for the winter's store of provision. In their distant excursions for berries these little animals have frequently to cross rivers, over which, on their return, they are said to convey their booty in the following ingenious manner:—The party of from six to ten select a flat piece of dry cow-dung, in the middle of which they place the berries in a heap, and, after launching it, embark upon it with their heads joined in the middle, and their tails pendent like

rudders in the stream. In this manner the passage is accomplished, though the unstable bark often suffers shipwreck, when the navigators must save themselves by swimming, with the loss of their whole cargo.*

The history of the amphibious mammalia on these coasts is more interesting and the species more numerous. Six or seven kinds of seal are found in Iceland, and two or three others, known only by their native names, occur in Greenland. They are of very great importance to the inhabitants of all those countries for their flesh and oil, but especially for their skins, which are used both as a dress and as an article of export. These animals belong to the carnivorous order of naturalists, and their heads, both in form and expression, have a considerable resemblance to that of a dog. Like it, too, they are easily tamed, and soon become strongly attached to their keeper or those who feed them. Their body is long and nearly conical, whilst their feet, almost buried in the skin, have much the appearance of fins. They are exceedingly curious and inquisitive, any new object in the neighbourhood of their haunts attracting their notice, often to their destruction, especially in those places where they have not been much harassed by man. They will follow a boat a long time seemingly astonished at the strange spectacle; and in Iceland they are frequently seen far inland, having been enticed from their native element by the light of some cottage-window. The most generally diffused species is the *Phoca vitulina* or common seal, found in vast herds on all the European coasts. The rough seal (*Phoca hispida*) is also common in all the three countries, though in Faroe apparently larger and more numerous than farther north. It there measures six or even seven feet in length, and frequents the same haunts with the

* Olafsen, th. i. p. 117. Doubts have been thrown by Hooker (vol. i. p. 52) and others on the truth of this account, which the author relates on the authority of eye-witnesses. It has since been confirmed by Henderson (vol. ii. p. 185-187), who met with two persons who had seen it repeatedly. The more we consider the wonderful adaptation of the instincts of animals to their peculiar circumstances, the less reason shall we find for surprise that in one country they should possess habits unknown to them in another.

former. In Greenland it never occurs in the open sea, remaining always near the fixed ice, and generally northward of Disco Bay, many thousands being killed every year in Omenak's Firth in latitude 72°. According to Fabricius and Giesecke, who make it the same with *Ph. fœtida*, it is the smallest known species, seldom exceeding four feet in length. This would incline us to suspect that it is not the same with the one found in Faroe. In Iceland it is scarce, only a few scattered ones being met with on the southern coast.

The hooded seal (*Ph. cristata; leonina* of Mohr), so named from a piece of loose skin on the head, which can be inflated at pleasure, and is drawn over its eyes when menaced (at which time its nostrils also become like bladders), is rarely seen in Faroe and Iceland, but found in great flocks round Cape Farewell. Nearly equal to it in size is the great seal (*Ph. barbata*), only observed in winter on the northern coast of Iceland, and seldom in Greenland. The harp or half-moon seal (*Ph. Grœnlandica*), known by the large black spots on its sides, from which it has received its name, migrates to Greenland from the north twice a-year, but is rare in the two other countries. The *Phoca gryphus* of Fabricius, considered by Professor Nillson as a distinct genus, and named by him *Haliochenus griseus*, occurs in Iceland, where it attains a size of eight feet in length.

Much resembling the seals in its body and limbs, though very different in the form of its head, is the morse or walrus (*Trichecus rosmarus*). It has no cutting or canine teeth in the under jaw, which is very much compressed, to make room for the two enormous tusks, sometimes twenty-four inches long, which project downwards from the upper one. These consist of coarse ivory, and their huge sockets raising up the whole front of the face, covered with numerous semitransparent bristles, give it a grim majestic aspect. It is twenty feet long, weighs from 600 to 1500 lbs., and its skin, generally an inch thick, is covered with short gray or yellowish brown hairs. The largest are found in the Icy Sea, sleeping on the floating ice, and feeding on fuci and small marine

animals. They are easily destroyed when caught out of the water; but when attacked in their native element they sometimes attempt to overset a boat, or make holes in it with their teeth. The small island of Saitok, at the mouth of Disco Firth, formed of alluvial land, is covered with an immense quantity of their bones and skulls. At present, it only occasionally visits Iceland, though the number of teeth and other remains dug up on the shore prove its former abundance, and even in 1708 a vast number appeared on the eastern coast. It still more rarely finds its way to Faröe, where only two or three have been met with.

Of the herbivorous cetacea, the only species found is the *Manatus Septentrionalis* or lamantin, which has a considerable resemblance to the animal last described. As it is, however, very rare on those coasts, we shall not detain the reader with any description of it, but pass on to the common cetacea. Though some varieties of them occur in every sea, yet the Polar Ocean seems to be their favourite resort; and against its cold temperature they are provided with a sufficient defence in the thick coating of blubber every where lining their smooth polished skins. The old northern authors divided this family into those possessed of teeth, or ravenous whales, and those without these weapons of offence; the former containing the modern dolphins, the most voracious and cruel of the race. Many of them are eaten, both in Iceland and Greenland, their flesh tasting like coarse beef, though somewhat oily, but others, according to the ancient laws of the former country, were forbidden to be used as food. One of the most valued is the beluga or white-fish (*Delphinus albicans*), which measures from twelve to eighteen feet long, with a small, round, very fleshy head, and short blunt teeth. It migrates to West Greenland every year, about the end of November, and is killed with the harpoon, or caught in strong nets. The oil made from its blubber is of the best and whitest quality, and its skin, an inch thick, is eaten raw, dried, or boiled. The common dolphin (*D. delphis*), is found in all the three countries, as well as the porpoise (*D. phocæna*),

and during a storm are seen gamboling round the ships, as if delighting in the contest of the elements. The grampus (*D. orca*), sometimes named the sword-fish, from the peculiar shape of its pointed dorsal fin, is one of the largest of the genus, being occasionally more than twenty-five feet in length. It is of a fierce, voracious disposition, roaming about in numerous herds, preying on the larger fish, and even attacking the whale himself. The ca'ing whale or grind (*D. globiceps*, Cuv. *D. melas*, or *deductor*, Traill), found in large flocks off the Faroe Islands, and farther south near Orkney and Shetland, is not mentioned among the animals of the more northern countries. Some hundreds, and even a thousand, have been known to run ashore in the bays at one time. A similar accident also happens to the bottle-nosed whale (*Delphinus* or *Hyperoodon bidens*), of which eleven hundred are said to have been captured in the Hval Fiord in the winter of 1809.*

The most celebrated animal of this family is, however, the narwal (*Monodon monoceros*), or sea-unicorn. Properly speaking, they have no teeth, but in their place, a single tusk, wreathed with a spiral groove, and directed straight forwards. This is eight or ten feet long, white, solid as the hardest bone, and surpassing ivory in all its qualities. They are said to employ it in procuring their food, either sea-grass or molluscous animals, and in defending themselves from their enemies. They are most numerous in Greenland, north of latitude 70°, where they are found during the severest winters, in the fissures of the ice. The inhabitants eat both the flesh and skin, whilst their tusks form one of the most valuable articles of export. Only that on the left side usually attains its full growth, the other remaining hidden in the socket, though on rare occasions both have been found of nearly equal length. They were formerly sold at an exorbitant price, as the horns of the fabulous land-unicorn, but are now only valued as ivory

* It was probably the common dolphin, of which it is related in the Annals, that in the year 1337, 1700 were driven ashore in Iceland, and some years afterwards, first 600 and then 800.

The cachelots are distinguished from the other cetacea by the immense bulk and truncated form of their heads. Two species (*Physeter microps* and *macrocephalus*) occur in the Iceland seas, of which the last, or blunt-headed cachelot, is the more common. The whale is too well known to require any lengthened description, though one of the most useful and wonderful animals found in those seas. Five species, the *Balaena mysticetus*, *physalus*, *boops*, *musculus*, and *rostrata*, frequent the vicinity of those lands, and even occur on the coasts of Britain, though the incessant persecution of man has now mostly driven them to seek safety in the icy waters of the arctic regions. The species of this genus are very imperfectly determined, and it seems still doubtful whether the four last mentioned are not varieties, or the young of one only. The first or common whale is the most valuable species, and, notwithstanding its immense bulk, the tamest and most easily caught. None of the others are much different from it; and as their bone is inferior in quality, and the blubber also in quantity, they are less sought after by Europeans, though the Greenlanders prefer the fin-fish (*B. physalus*) on account of its flesh, which they say has a pleasant taste. In ancient times the inhabitants of Iceland fitted out large boats for this fishery, and every person of consideration engaged in it. But the misfortunes that befell the country in the middle ages having destroyed the spirit which prompted to this enterprise, it soon fell entirely into the hands of strangers, whose incessant pursuit has driven the few fish that escaped them to more northern latitudes, and the larger kinds are now seldom seen on the coast. The gradual extermination of this and some of the forementioned species seems to point out the intention of Providence that man, as he advances in civilisation, should be more dependent for food and clothing on the domestic races of animals and the produce of his own industry. We indeed find that the nations whose chief resources are placed in the spontaneous gifts of nature, resemble, in their wild and wandering character, the creatures they pursue, and the alternate abundance and famine

consequent on such uncertain supplies seem to unfit them for any steady and persevering line of conduct.*

The winged tribes, endowed with more powerful organs of locomotion, are better adapted for being diffused through islands than those animals whose wanderings are confined to the land. But even the smaller birds, that frequent inland situations, are little liable to those accidents which seem to have been often the means of disseminating species through wide ranges of country. A curious instinct possessed by those that inhabit shores or islands also prevents them from being carried by unexpected tempests to other lands. In their excursions over the ocean, they generally fly against the wind, so that they may be aided by it when returning home with weary wing. Yet sudden storms or unexpected changes in the direction of the gale often bear them out to sea, and, together with the known migratory inclinations of many of the species, account for the presence of all the feathered inhabitants of these islands.

The largest of the falcon tribe common to these three countries is the cinereous eagle (*Falco* or *Aquila albicilla*), distinguished by its brown clouded plumage, which varies much at different ages. It generally frequents the sea-coast, sitting on the rocks with flagging wings, or flying slowly along the shore, looking for its prey. In Iceland it also inhabits the fresh water lakes, feeding on the trout and salmon. In Faroe, a pair were accustomed to breed on a rock in Tindholm, so steep that the boldest bird-catchers never dared to scale it. Once they carried off a child, and were followed to their eyry by the distracted mother, but too late to save her infant.

The Iceland or jer-falcon (*F. Islandicus*) also found in all these countries, though most common in the island whence it is named, was formerly much prized for hawking, and great numbers were exported every year

* The animals of this family found in the opposite or Antarctic Oceans, are distinct from those in the Arctic Seas; but are equally with them vanishing before the persecution of man. According to M. Lesson, those of the Northern Pacific also form a distinct group. Dictionnaire Class. d'Hist. Nat. tom. xiii. p. 409.

At that time the King of Denmark had a falconer in the island to catch or buy the young, and the inhabitants were forbidden to molest them. It is a powerful bird, two feet long, with white plumage, often marked by dusky lines or spots. They are by no means numerous in Iceland, even though they are now no longer sought for. They were caught in nets baited with a live partridge or pigeon, and sold for a price varying according to their colour, those altogether white being most valued. The bird-catchers received about £2, 12s. for each; and the whole were sent to Denmark to the royal mews, whence they were distributed as presents throughout Europe.

The only species of owl found in those countries is the snowy owl (*Strix nyctæ*, Temm.), called *orpik* by the Greenlanders. The plumage of the young ones is variegated with brown spots or bars, but these vanish as they grow older. Its favourite resort is the vicinity of the glaciers in the interior of the country, where it preys on every bird it can master, both by night and day. It sometimes visits Iceland, and is met as far south as the Orkney Islands.

Several species of crows are observed in those regions, particularly in Faroe. There the common crow (*Corvus cornix*) is very abundant, and though in smaller numbers, the carrion crow and jackdaw. The two former are also found in Iceland, though very seldom. The largest of the genus, however, the raven, is more numerous in that island, where it is the most common bird, and seems to thrive remarkably, being at once larger, stronger, and bolder, than in more southern countries. It is very rapacious, destroying the lambs, sheep, and all small animals it can find, and is very injurious to the eider ducks, chasing them from their nests, and sucking their eggs, or devouring their young. It is, for the same cause, at constant enmity with the oyster-catcher, whimbrel, plover, and skua. In summer they are dispersed over the whole island, but on the approach of winter, they attach themselves to the houses in parties varying from two to ten, according to their size and number of inhabitants. They remain there till spring,

and unite in driving away any stranger that may venture to intrude into their society.

In Faroe a variety is not uncommon, which is described as either altogether or partially white. Some systematic writers make it a particular species under the name of *Corvus leucophæus*. Though observed in the Orkneys, it is most common in the former islands, where observation proves it to be merely a variety. It is found in the same nests with others of the ordinary colour, and they are even seen paired together for years, when sometimes the young are all black, at others one of the number is white.

Two or three species of grouse occur in those countries. The ptarmigan (*Petrao lagopus*) during the summer, when it is of a brownish colour, inhabits the Greenland mountains, feeding on the crowberries, and in winter descends to the valleys on the shores. According to Faber it is not found in Iceland; but another is seen there, namely, the *Petrao albus*, willow-grouse, or snow-hen, of a larger size and redder colour especially when in its summer dress. The quail (*Perdix coturnix*) on rare occasions visits Faroe. The rock-dove (*Columba livia*) nestles in all the inhabited islands of that group; but it contrives to conceal its nest with so much skill, that it is seldom discovered by the inhabitants. It is of a bluish-ash colour, with some white and black spots, and feeds on the unripe barley, as well as on the roots of some plants. It is the same with the *Columba œnas* of Pennant, and seems common on all the steep rocky coasts of Europe.

Other smaller land-birds are very few, and many that constantly reside in Britain are there migratory. This is the case with the Lapland-finch, the redpole, the wheatear, and the snow-bunting, that hardy denizen of the north, which are nearly all that are found in Greenland. In Iceland and Faroe the redwing, blackbird, and fieldfare also occur, together with the starling and pied wagtail. If to these we add the common wren, the meadow-pipit, the swallow and martin, which, however, are very seldom seen in Iceland, we shall have enume-

rated almost the whole species known. Faroe is, however, sometimes visited by the lark, the yellow wagtail, the wryneck, and on one occasion at least by the beautiful golden-crested wren, whose brilliant tints excited great astonishment among the natives. The rock-pipit is also a common inhabitant of the coast, running about among the loose stones and seaweed.

The Grallatorial tribes are comparatively more numerous, their aquatic habits supplying them with greater abundance of food. Greenland is still the most deficient, possessing only about half as many as either of the two other countries, probably in consequence of its rocky soil. The snipe is found in them all. The ringed and golden plovers are also common migratory birds, visiting them all in spring, and retiring before winter commences, whilst the *Charadrius auratus* is peculiar to Faroe. The beautiful crested lapwing occurs in Faroe and the south of Iceland, where, as well as in Greenland, the jadreka, or black-tailed godwit (*Limosa melanura*), is sometimes seen. The curlew is also rare; but the whimbrel is more frequent, enlivening the dreary marshes, with whose scenery their wild harsh cries well accord.

The heron is only an occasional summer visitant of those islands, where many strange stories are told of it, and the Faroese fishermen believe themselves sure of success when they have one of its feet in their pocket. The oyster-catcher (*Hæmatopus ostrealegus*), haunts the sea-shore, feeding on worms and shell-fish, which last it opens with its beak. Landt relates that when it attempts this with some of the larger muscles, the latter often closes its shell, and holds the bird fast till it is caught by the natives. In these islands it builds its nest in the moors by the sides of streams or lakes, and though usually shy, will then pursue the hunter with deafening cries. It is a sworn foe to the ravens, crows, and skuas, and will not permit them to approach its nest, driving them away with repeated blows of its long bill. On this account it is a favourite with the natives, who are unwilling to see it shot. It remains in Iceland all the

year; but in winter is only found in the southern districts, whereas in summer it also visits the north.

The Natatorial order of birds are more aquatic in their habits than even the former, and better adapted by their organization for procuring their food amidst the waters. Their feet, situated far back, and their palmated toes render them expert swimmers, whilst they are protected by their dense plumage, saturated with oil and lined with thick down, from the effects of cold and moisture. They are thus well fitted to subsist in the dreary regions of the north, where, though the rivers and marshes may be bound up in ice, and the land buried beneath the snow, they can generally find nourishment on the restless ocean.

The largest and noblest of this class is undoubtedly the wild or whistling swan (*Cygnus musicus*), with pure white plumage, slightly tinged on the head with orange yellow. This majestic bird is five feet long, and with extended wings eight broad. It is rarely seen in Greenland, and appears merely to rest in Faroe on its journeys to and from Iceland in the spring and autumn. Some of them, however, remain all the winter in the latter, and during the long dark nights their wild song is often heard as they are passing in troops from one place to another. It appears to be a kind of signal or watchword, to prevent the dispersion of the party, and is described as remarkably pleasant, resembling the tones of a violin, though somewhat higher, each note occurring after a distinct interval. This music is said to presage a thaw, and hence the Icelanders are well pleased when, in long-continued frosts, it breaks their repose. In summer these birds are found in many of the lakes and rivers, particularly near the Skaga and Borgar Fiords; and they are very numerous on the Arnarvatns and Holtevarde-heide, where a tract of forty miles long by twenty broad is almost entirely covered by marshes, lakes, and small ponds. Here they lay their eggs in spring, which are gathered by the natives, and in August, when the old birds moult and the young cannot yet fly, many persons go thither to collect the feathers and catch

the birds. Besides the quills, the skins are also of considerable value, and the natives eat the flesh, which is dry and tough.*

Next to this we may notice the wild goose (*Anser ferus*), which remains during the summer in Faroe; but now becoming much rarer, as it retires to more secure retreats. The duck tribe is also very numerous in the lakes and rivers, especially in the Myvatn, in the north of Iceland. The mallard (*Anas boschas*) the origin of the domestic duck, is generally diffused through them all, and the teal is common in Iceland and Faroe. Landt mentions the *Anas circia* among the birds of the latter country, though only once seen by him. This is perhaps the same with the small duck, less than the teal and with a bunch of feathers on its head, which is sometimes shot there in winter, which Graba thinks may perhaps be the citron-duck of Norway. The shieldrake (*Anas Tadorna*) is the most lively-coloured of all the family, the ground of the plumage being white, the head green, the wings varied with white, black, red, and green, whilst its breast is adorned with a cinnamon-coloured zone. It is found in Iceland, and makes its nest in the sandy downs.

More interesting, however, than any of these are the eider ducks, of which we find two species (*Somateria spectabilis* and *S. mollissima*) in those cold regions. The first of these, the king-duck, notwithstanding its high-sounding name, is almost eclipsed by its neighbour. This bird is observed in all these countries, and is indeed very widely diffused round all the coasts of the northern Atlantic. In winter they resort to the open sea, returning to the small islands on the coast in spring when the grass begins to grow. In Iceland they are exceedingly

* The account of the midnight song of the swan, is from Olafsen, who says that it, das allerangenehmste zu hören ist, "is the most pleasant to hear." The singing of the swan is now regarded as a fable, yet Henderson talks of hearing them "singing melodiously" on the Hvita. In the Edda we also find Niord, when compelled to reside in the interior of the country, saying, "How do I hate the abode of the mountains! There one hears nothing but the howling of wolves, instead of the sweet singing of the swans who dwell on the seashores."—Vid. Mallet's North. Ant. vol. ii. p. 58. Henderson, vol. ii. pp. 1[illegible] 136. Olafsen, th. i. p. 34.

numerous on the western coast, especially near the Breida Fiord, where are most of those small islands on which they prefer to breed. The ground colour is white, greenish on the back of the head and neck, and tinged with a vinous red on the breast. The forehead is a glossy violet-black, the belly and rump deep black, and the quills and tail-feathers dark ash-gray. The female is reddish-brown, marked with black or dusky streaks and bars. The young birds during the first year closely resemble the female, only they are of a darker brown, and have more white on the head and neck. Afterwards they get a band on the top of the head of brown feathers mixed with a few white, then the neck and shoulder feathers become brighter, till they only differ from the very old ones in the brown streak on the head, and the less lively tint of the wine-red on the breast. They are said to be four years in coming to full maturity, when they measure about two feet in length. The Icelanders think that they live to a great age, sometimes to 100 years; and one pair are known to have frequented the same nest at least twenty years, during the last of which both were entirely white. They place their nest on the ground near the sea, or on a projecting rock, and prefer the small grassy islands, where they are not liable to be disturbed by dogs or foxes, which are in constant search for them. The nest is composed of seaweed or grass lined with down plucked from their breast; and to induce them to choose particular islets, the people supply them with hay. The eggs are olive-green, sometimes greenish-blue, or surrounded by a green ring, and are usually four or six in number, though sixteen have been found in one nest frequented by two birds. The eggs and down are twice removed, and the nest is repaired a third time, the drake supplying the down to line it, that of his partner being now all exhausted. The old birds are said to submit very quietly to the removal of their eggs, but the younger ones often fly at the intruder, and endeavour to defend their nests. When they are robbed three times in succession, they entirely forsake the place. They begin to

deposite their eggs about the commencement of July, and the young appear about six weeks afterwards. Soon after leaving the shell, the mother conducts them to the sea, when the male, which had hitherto continued watching by the nest, takes his departure. The young do not return to the land, but frequent the skerries, where they feed on the fuci and small molluscous animals. The eggs are eaten by the natives, and the down is a valuable article of export. Each nest contains about a sixth of a pound of clean down, or, including the three times that it is removed, half a pound. What is plucked from the birds after their death is of no value, having altogether lost that elasticity which is so remarkable in the other. About two or three thousand pounds weight of it is exported from Iceland every year. In Greenland the skin is preferred for shirts to all others; and from the colony of Egedes-minde alone 1000 pounds weight of down have been produced.

The remaining birds of this order are all marine in their habits, seeking their food in the ocean and nestling in the precipitous cliffs that surround the shores. They seem in some measure gregarious, choosing to build their nests all on one rock, though others apparently equally adapted for this purpose may be found at no great distance. Some have sought a reason for this selection in the greater abundance of food near these places; but the opinion of Faber, who thinks that they are determined by the love of society and a wish to return to their first home, is the more probable. The aspect of the place has also an effect on their choice, as of twenty-five of these bird-rocks (vogelberg) as they may be called, in Faroe, all of them look to the west or north-west, none to the east where equally advantageous situations occur. This preference may partly be ascribed to the greater frequency of west winds near these islands, since the birds always like to fly against the wind when they depart, that they may enjoy its assistance in returning home. But the nests are not on this account exposed to the full fury of the storm, being generally placed so as to be protected by some

projecting cliff or rock. The words of the poet strike every one as singularly correct, when talking of these spots, where rock and sea are covered with the feathered race, and the ear deafened with their innumerable voices.

> " Or where the northern ocean, in vast whirls,
> Boils round the naked melancholy isles
> Of farthest Thule, and the Atlantic surge
> Pours in among the stormy Hebrides;
> Who can recount what transmigrations there
> Are annual made? what nations come and go?
> And how the living clouds on clouds arise?
> Infinite wings! till all the plume-dark air
> And rude resounding shore are one wild cry."

Probably the most widely diffused and numerous of all these birds is the puffin or lund. It forms its nest in holes which it digs in the clay or soft weathered rocks close to the sea, and in the breeding season the cliffs near the Westmanna Islands are completely covered with them. In Faroe they are so numerous that the inhabitants during the month of May live almost entirely on their eggs, and also catch many of the birds themselves by digging into their holes. In three days 5000 old ones have been taken on the island of Store Dimon alone, and thousands are often captured on the small uninhabited islets in the sea. Though very timid when ser[illegible] when a number are sitting together on the rocks they are said to be foolishly confident.

The auks are very numerous in these places, especially the *Alca torda* or razor-bill. The great auk (*A. impennis*), which is the size of a goose, used formerly to be found in these countries. In Landt's time it had, however, become scarce, and at present is almost unknown even by name. According to Graba none have been seen in Greenland, Iceland, or Faroe of late years, so that the race may now be regarded as extinct. It used to be seen near St Kilda, where it was named the garefowl, a name similar to its Icelandic one of geirfugl.

The cormorant (*Phalarocorax carbo*), which is also common, is eaten by the Icelanders. Other two species (*P. cristatus* and *graculus*) are said to occur, but Faber is very doubtful how far these are to be regarded as distinct

from each other or from the former. Graba maintains that only the very old birds have a crest, which they retain throughout the year. They sit singly or in flocks on the rocks watching the fish, on which they feed, and which they can pursue three or four minutes below the water. They build on rocks near the open ocean, and their nest is composed of sea-grass, in which they lay four whitish-green eggs.

The terns or sea-swallows, so named from their long pointed wings and forked tails, frequently present themselves in these latitudes skimming the surface of the ocean, where they catch small fish, mollusca, and insects. The common tern (*Sterna hirundo*) is abundant in all these countries, in Iceland particularly near the Myvatn, and their eggs are said to be very delicate. The arctic tern is also found in Faroe, where Graba describes a new species under the name of *Sterna brachytarsa*, though the characters ascribed to it seem scarcely sufficient to distinguish it from some formerly known.

Equally powerful in their flight are the gulls, almost constantly on the wing, braving the wildest tempests, and, though common in all latitudes, largest and most numerous in the north, where they feed on the carcasses of fish and cetacea. Nine or ten species are found in those regions, of which the kittiwake (*Larus tridactylus*) is the most prolific, especially near Grimsey in the north of Iceland. The young birds cover the rocks, which look completely white, and a well-directed shot will knock down from twenty to forty. The skuas, sometimes included among the gulls, are a singularly predatory race, living almost entirely on the fish ravaged from the others, and on this account have got the name of *Lestris* or thief. The common skua is the most abundant, particularly in Faroe, which, with the Hebrides and Shetlands, constitutes its true home, whence it has wandered in smaller numbers to the surrounding countries. It forms the transition from the gulls to the birds of prey, resembling the one in body, plumage, and food, and the other in bill, claws, flight, and predatory propensities. It not only pursues the gulls, compelling

them by violent strokes to disgorge the fish which they have obtained, but robs them of their eggs and young, and has even been seen to kill a puffin by a single blow. It is the object of aversion to every other bird,—none will build near or remain in the lakes where it takes up its abode,—every one looks at it with reserve; the bold attacking and driving it away, whilst in the rounds it makes along the coast, the timid hide themselves in the water or fly off to sea. It defends its nest with great boldness, and, it is said, will attack both animals and men when they approach too near. In one breeding-place on the island of Sandoe no fewer than fifty pairs had collected, and at no great distance a colony of the arctic skuas had established themselves. This species (*L. parasiticus*), distinguished by two long tapering tail-feathers, is rather smaller than the former, but, possessing the same habits, is equally hated by other birds; and the pomarine skua, observed though rarely in Iceland, also agrees in these predatory dispositions.

The petrels, so named from their faculty of walking on the water, frequent these islands in the breeding season. The northern fulmar, of which from 20,000 to 30,000 young ones are annually caught on the Westmanna Islands, and the cinereous sheerwater (*Procellaria glacialis* and *Puffinus*) are found in them; whilst the stormy petrel is more common near Iceland and Faroe, where it builds its nest among loose stones or in holes along the shore. These birds (*P. pelagica*), well known by their supposed faculty of foretelling to the navigator the approach of storms, are about the size of a lark, and almost entirely of a brown colour. Their flight is extremely rapid, and in storms they are seen sheltering themselves in the hollows of the waves or behind a ship. They only approach land when they have young, and are rarely observed in the neighbourhood of the coast.*

* An account of the birds of Greenland will be found in Fabricius, and a list of them in Giesecke, whilst Egede, Crantz, Scoresby, &c. supply many incidental details; those of Iceland are enumerated in Faber's "Prodromus der Isländischen Ornithologie,"

In surveying the distribution of animated nature on the earth, we are often as much struck with its deficiencies as with its excess. In two of these countries the class of reptiles is altogether wanting, not even a single species having been observed. In Greenland one species, the *Rana temporaria* has been found, but its presence only makes the want of others more perceptible. Their cold blood and limited muscular energy seem to unfit them for enduring the rigour of those climates, and whilst, at the present day, they increase in numbers and size as we approach the tropics, the abundant remains of gigantic tribes now extinct, tell of a period in the world's history when these arctic lands, if already elevated from the ocean, wore a less bleak and desolate aspect.

The fishes, though apparently less restrained in their migrations by the continuity of the element in which they live, have yet a particular distribution. Some species are found only within certain limits, and others, like the birds, migrate at fixed periods, either to deposite their spawn or to seek suitable food. Of this kind are the salmon, which at certain seasons forsake the sea for the fresh water, of which they form almost the only inhabitants in those countries. The common salmon has been caught in Faroe, and is very numerous in all the Icelandic rivers, feeding, according to Faber, on small fishes and a variety of minute marine animals. Some of them remain in the streams throughout the winter, but the greater number only appear for the first time in May. In the Reikedalsaa, in West Iceland, though many parts of it, owing to the hot springs, are lukewarm, salmon are often found, weighing not less than thirty or forty pounds. In some rivers they are caught by turning off the water, when they are procured in vast numbers in the pools. Mr Hooker saw 2200 secured in this manner in one day in the Laxelve, about six miles

and their habits are well described in his treatise "Ueber das Leben der Hochnordischen Vögel." Many interesting facts will also be found in Olafsen and other travellers. A catalogue of the birds of Faroe is contained in Landt, to which Graba has added about a score, with much valuable matter for their history.

from Reikiavik. The salmon and common trout (*S. trutta* and *fario*) are also found in the lakes and rivers, where the natives have names for some other kinds, which may perhaps be distinct species. Besides the common and conger-eels (*Muræna anguilla* and *conger*), the Icelanders speak of a third, which they call *hrokaal*. They are said to be partial to the warm springs, and are not known in the northern parts of the island. None of them are eaten by the natives, who have an aversion to them on account of their resemblance to serpents.

The great family of fish allied to the cod are those from which the inhabitants of Iceland derive the greatest benefit. Most of the species prefer the cold or temperate regions of the ocean, where they constitute the object of very important fisheries. The largest of them is the common cod, the stockfish of the natives, and is particularly abundant on the southern and western coasts. The dorse (*G. calarias*), smaller than the former, but more numerous, is at the same time thought a finer fish. It is usually salted in barrels, whilst the other is dried on the rocks. There is a variety of it distinguished by a red colour, supposed to be caused by its living among reeds, probably similar to the red cod in the neighbourhood of the Isle of Man. The haddock is also dried as stockfish, and from the thick white bones of its shoulders the Icelanders cut various fancy articles, such as chessmen. The torsk (*Brosmus vulgaris*) which is also pretty common in those seas, is sometimes during storms cast on the shore of Faroe in hundreds. It is said not to be found farther south than the Orkneys, and is occasionally seen above three feet long. The ling (*Lota molva*) is also converted into stockfish, and is equally abundant with the cod, which it seems to surpass in size, being in some instances not less than seven feet in length.

The remora or sucking-fish (*Echeneis remora*), common in the Mediterranean, is reported to have been on one occasion caught in Iceland, where the name is still known. They were four in number, and the fact is curious as an instance of the distance to which certain species may wander from their native haunts, and of the great diffi-

culty of fixing their true geographical limits. The plaice, flounder, holibut, turbot, and other flat fish, are found on those coasts, and are eaten either fresh or dried. There is nothing in their history, however, particularly interesting, unless that in one place on the northern coast they are seen with the cod, living in the fresh water of a lake on the brink of the ocean.

Some cartilaginous fishes, amongst others the sturgeon (*Accipenser sturio*), occur in those seas. The white shark (*Squalus carcharias*), from twenty to twenty-five feet long, also frequents them, and there often falls a prey to its ravenous propensities. The fishermen catch it with strong hooks fastened to iron chains, and prepare oil from its liver; each fish yielding nearly a tun. Superior in size, though less ferocious in its habits, is the basking-shark (*S. maximus*), which is more particularly an inhabitant of the northern seas. Allied to it is the saw-fish (*Prestis antiquorum*), twelve or fifteen feet long, distinguished for its long sword-like beak, armed on each side with strong bony spines or teeth. With this it attacks the largest whales, and, notwithstanding its inferior bulk, avails itself so well of its greater activity, that in most cases it comes off victorious.*

We cannot enter at any length into the history of the other inferior tribes of the animal kingdom. None of the Icelandic molluscous animals are large or brilliant in their colours, most of them being spiral univalves, not bigger than a pea, and others only like pin-heads. The inhabitants make very little use of them, and only a few are eaten. Of these we shall name the common oyster (*Ostrea edulis*), found in the Hval Fiord, muscles (*Mytilus edulis* and *modiolus*), some *cardia* (*C. edule* and *Grœnlandicum*), and several *myæ*, of which the *M. truncata* and *arenaria* are the most numerous. The *Cypriva Islandica*, the only species of this genus, may also be mentioned as found in that island, though by no means

* The fishes of Iceland have been described by Faber in his work Naturgeschichte der Fische Islands (Frankfort 1829). See also Olafsen, Landt, Fabricius, Scoresby, &c.

confined to it alone. The *Teredo navalis*, so destructive to ships, and considered as originally a native of the torrid zone, is brought to these countries in the drift-wood.

Crustaceous animals are far from numerous. Among them we find the hermit-crab (*Cancer Bernhardus*, Linn.), which inhabits the shells of molluscous animals, stopping the aperture with its right claw. On one occasion Olafsen mentions that he found the sea in a small bay coloured red with the young of one of this class of animals, probably that now mentioned. The water seemed thick like coagulated blood, and it was only on close observation that he observed in it the small insect-like creatures, two or three lines long, and quite soft. Parts of the ocean have been seen of this colour on other occasions, but whether from the same cause is not stated.

The countries under our consideration have often been represented as sparingly stocked with insects; but this seems only partially true, as Olafsen states that in one small valley he collected above two hundred kinds. Most of those described resemble the species common in Great Britain, and even in Greenland none but European ones occur. In Iceland the most numerous genera are the Musca, including the common window and flesh-flies; the tipula or crane-fly, and the mosquitoes (*Culex pipiens*), found in such immense swarms on the Myvatn as to have conferred on it its name. The spiders (*Araneæ*) are also numerous, and one of these, the fialla-kongullo or mountain-spider (*A. crucigera*, Olafsen, probably *A. diadema*, Linn.), half an inch long, spins its web among the high cliffs, and is one of the largest land-insects in the island. According to the author just quoted, nearly thirty species of the *Araneæ* and *Phalangia* have been noticed in West Iceland alone, whence we may conclude that the insect tribes even in this island would not be found deficient in number were they all described.

Many radiated animals are known, as starfish, echini, and medusæ. Among the polyps are some species of

actiniæ, hydræ, serpulariæ, millepores, and other coraliferous species. Some of the alcyonia and sponges are likewise found, though we are not aware that any use is made of them by the natives.*

* The whole Fauna of these countries is by no means extensive. Fabricius enumerated 468 animals as living in Greenland, which have been increased by subsequent investigations to upwards of 500. The number in the different classes is as follows: Mammalia 33, Aves 60, Amphibia 1, Pisces 47, Mollusca 79, Crustacea 33, Insecta 82, Vermes 92, Zoophytes 79. In Iceland the whole number named is 464, of which the Mammalia are 36, the Birds 107, the Fishes 47, the Insects only 126, Mollusca 66, Crustacea 18, Worms 31, and Zoophytes 33; the inferior classes of animals being, as usually happens, the most imperfectly known. The birds of Faroe described by Landt and Graba amount to 99.

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THE END.

Printed by Oliver & Boyd,
Tweeddale Court, High Street, Edinburgh.